JANUARY, 1973

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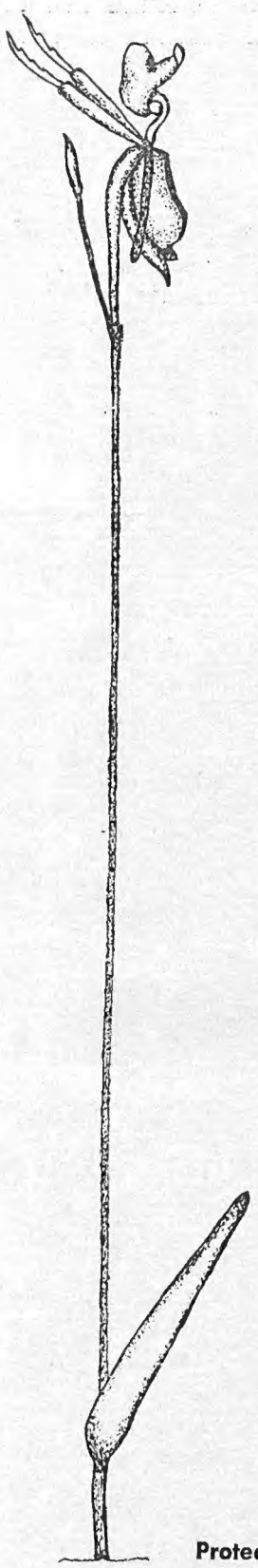

Latrobe Valley Naturalist

Protect and enjoy

15c

Registered at the General Post Office Melbourne for transmission by Post as a Periodical Category B.

COMING EVENTS.

Warragul F.N.C.

Meeting:	Friday January 19th. Millers Factory, Sutton St. Warragul
Speaker:	Mr. Donald Teese(member of B.O.C.) "Birds of the Channel Country S.W.Queensland".
Excursion:	Sunday January 21st. Contact Secretary for details.

L.V.F.N.C.

Meeting:	Friday January 19th. at the Yallourn Library.
Subject:	Film Night
Excursion:	January 27th 29th. Mt.Baw Baw Weekend at the Ski Lodge.

A Happy New Year to all our readers.
Could it be possible for a New Year Resolution?. It might be that more people will contribute a small article for the Naturalist. We publish 120 copies each month, the percentage of people sending articles is therefore quite small. This seems to be a continual plea from the Editor, but to be a success a paper must have copy. Heres Hoping for 1973 from the Editor.

VICTORIAN FIELD NATURALISTS CLUBS ASSOCIATION.

At the Meeting held at Bairnsdale on 30th September 1972, the following decisions were reached.

1. The proposals circulated were considered and, with some amendments, approved. The final versions were:-

Clause 1. That a new body, to be known as the Victorian Field Naturalists Clubs Association be set up to improve communication and co-operation between the clubs, to encourage the establishment of new clubs, to foster regional groupings and activities, to co-ordinate and promote conservation projects, and to support the C.C.V. for the purposes of Conservation.

Clause 2. That an affiliated club shall be a club affiliated with the Victorian Field Naturalists Clubs Association.

Clause 3. That the Council of the Association shall consist of ten members, two each from the areas; North West, South West, Central, North East and South East, who shall be elected at the Annual Meeting.

Clause 4. That the Council of the Association shall meet at least twice each year, and shall call an Annual General Meeting and Convention of all Clubs.

Clause 5. That each Affiliated Club shall be entitled to send two delegates to vote at the Annual General Meeting, or may appoint, in writing, two other delegates as its proxies.

Clause 6. That each Club may nominate two members for election to Council, and shall be eligible to vote for all positions on Council.

2. It was decided not to elect a Council, but to re-convene the Steering Committee and to co-opt to it those members nominated by Clubs for the Council. The next meeting will be on 18th. November at Brighton.

3. It was decided to hold the first Annual Convention of Field Naturalists Clubs at Shepparton on the Labour Day weekend next year(March 10-12, 1973)

Please mark this in your diary NOW.

The program for the weekend is being organized by the Goulburn-Murray Field Naturalists Club, and although it is not the best time of the year for wild-flowers, a most interesting weekend is being planned. We hope that all Clubs will make it an official excursion and that as many as possible of your members will attend.

R.H.Riordan,
for Steering Committee.

The Committee of the L.V.F.N.C. after receiving the circular decided that it would be a good idea to publish the vital information fo all members to read. We can then decide what our attidude to this new organisation will be.

THE AUSTRALIAN SKIPPER BUTTERFLIES

Continued from December Issue.

Skippers always like a locality with wide open shallow sunny depressions. The favoured places are always wet, with a very acid soil where the food plant (Sword Grass) grows luxuriantly with an abundance of wild-flowers.

Throughout the years I have spent many happy days in such typical skipper habitats, with the sweet intoxicating chocolate fragrance of masses of wild-flowers, and with the butterflies and birds for company. Alas a number of these lovely places have been needlessly destroyed for ever.
We must not despair however at the loss of old hallowed localities, where long ago we spent so many happy, and enjoyable days with the butterflies, birds, and wildflowers.
We still have the memory of days gone by although at times we may be a little saddened, and discouraged at the rapid,and destructive march of so called "progress". But instead we must marshal our energies, determined to go further afield, and find new places, and perhaps new species of insects,or wildflowers.

With the motor car, and good roads we can go further afield in one or two hours, but this also for obvious reasons has its disadvantages.
Wherever the motor car has gone the ultimate destruction of Nature has followed.
Nature never stays put, it is always changing and is a never ending source of wonder, and surprise, both to the young and older generations.

Some things in nature have not been able to adjust to changing circumstances.
I have known some rare species of butterflies to go back to the old areas occupied by former generations of the species half a century ago.
For years a few butterflies were found in such places every season until the last piece of the food plant was destroyed.

Our birds too, have difficulty in adapting to changing circumstances. Some species can adapt more easily than others, but they still possess that fondness for particular areas, that former generations knew long ago.

Our Skipper butterflies provide us with a vast field of study.
They are more interesting because their characters, and habits differ from those of other Lepidoptera. Adequate study of them must be done in the field, where opportunities are limitless. Quite a few of them seem to be associated with wild-flowers. Such species as daisies, everlastings, fringed"silkies", pimelea being particularly favoured.

No one branch of Nature can adequately be studied alone. Each is dependent on another and altogether they provide a huge field of wonder and fascination.
On several occasions while searching for Skippers, I have worked over what appeared to be a perfect habitat, but to my surprise no signs of Skippers or their larval shelters in the leaves of the Gahnia were found.
The soil was dry, with very few wildflowers, and very little of the fragrance which the butterflies seem to like so much.
At once I realised what was lacking in the habitat, although to the casual observer, it seemed a good locality.

Contd..pp 3

THE AUSTRALIAN SKIPPER BUTTERFLIES

contd..

The Gahnia was there to provide food for the larvae but there were not enough flowers to give nectar for the butterflies.
A few weeks later I worked over another new interesting area of Gahnia(Sword Grass)on a gentle slope facing the east, but the ground was much wetter, with masses of wild-flowers everywhere.
The Skippers were feeding on the nectar of daisies, everlastings, pimelea, wild pansies etc. and the air rich with the scent of the flowers.

I believe the butterflies can see quite well, and they appear to have a keen sense of smell. Dr. Ford of England mentions this in his book"British Butterflies"

The Skippers are hungry feeders, and very fond of the nectar of all wild-flowers even the dandelion is favoured by them.
I feel this to be a most appropriate place to pay tribute to my old friend Charlie Elton, my companion in the bush for many years. Many hundreds of specimens of beetles, and butterflies,with his name in fadeless Indian Ink on all the labels are in my collection. Surely this is a fitting tribute to a fine bushman, and one of Natures Gentlemen.
He has travelled overseas, and is a very skilled trout Angler always being a keen lover of nature in all its forms.

C.G.L.(Llewellyn)Gooding.
Life Member Warragul F.N.C.

NEWS ITEM.

Woolworths, Canberra, advertize. "Water, guaranteed pure and biodegradable, 35 cents per litre."

FOR NOTHING !

Piped water for washing, piped water for bathing, piped water for scrubbing and cleaning
Is measured and paid for, and counted and listed, for that is the meter clock's moaning,
But water for drinking is not piped or paid for. I get it for nothing - from heaven.
My water for washing and scrubbing and cleaning comes down from the hills in a river.
It is born of the snows and high cold of the mountains BUT (here is the bit makes you shiver)
It may still be polluted by fauna and flora, so, for drinking, I get it from heaven!
Whenever it rains it comes down on the garden, and the country around me is sweeter,
So I keep one old tank, with a tap in the kitchen, and don't have to measure each litre,
For rain fills my tank and I drink it like nectar. It comes here(FOR NOTHING) from heaven.

J.Galbraith.

COLOUR AND POISONS IN INSECT PROTECTION.

A very interesting article appears in New Scientist of 11 May, 1972 written by the Hon.Miriam Rothschild, a research worker in the Department of Zoology, Oxford. In it she reveals that a large number of insects are capable of sequestering and storing poisons from particular plants in order to protect themselves from predators, while others secrete substances for the same purpose. At the same time these insects display warning colours so that they may be recognised easily by their would-be attackers and avoided.

Such insects include butterflies and moths, beetles, grasshoppers, plant bugs, flies lacewings, aphids and a scale insect, and they may store heart poisons(cardenolides), aristolochic acids or toxic plant alkaloids.

The conspicuous orange and black and white-spotted Milkweed Butterflies (Danaus chrysippus) of South Africa contain heart poisons in their body tissues which cause severe vomiting and distress if swallowed by birds.

The Monarch or Wanderer Butterfly(Danaus plexippus) sequesters two heart poisons(calactin and calotropin), while pharmacophagous Swallowtails store nitrophenantrenes. Danaids and Swallowtails feed mainly on Asclepias(eg. Swan Plant) and Aristolochias(eg.Pipe Vine) respectively. An extract from the Aristolochia(which means "best for delivery") was used in olden times in the delivery of babies.

A group of brightly coloured Moths, the Tigers(Arctiidae), and a number of other warningly coloured insects such as wasps, hornets and the Colorado beetle, are capable of manufacturing their own poisons. The Garden Tiger (Arctia caja) is polyphagous(not restricted to a particular food plant) and secretes acetylcholine and another choline ester, which are often found in the poison glands of animals such as snakes and whelks, and in the stinging hairs of plants like the nettle. The female abdomen and eggs of this Tiger also contain a highly lethal protein.

The Tigers are also able to sequester toxic substances from plant food, e.g. Pyrrolizidine alkaloids from Groundsel(Senecio) and Digitalis from Foxglove.Pyrrolizidine alkaloids are also found in Ragwort and a genus of Vetch (Crotalaria) which causes severe illness or death if accidentally eaten by cattle, horses or poultry. The Vetch produces high blood pressure and congestive heart disease in man if used in native "bush teas" in Africa and Jamaica. No wonder theTigers are avoided by their bird predators!

Over 30 cardenolides(heart poisons) have been obtained from the Oleander which is used by a brilliantly coloured red and black plant bug that stores eleven of these.

In addition to their colour display, many insects employ warning attitudes, scents or sounds to increase their protection.

Again, other insects protect themselves by mimicking the warning colour display of the poison-protected insects.

It is a never-ending wonder to see marvellous interaction in nature, intelligently carried out according to a plan that only man seeks to disrupt.

Betty Kemp.

F.N.C.V. VISIT TO LEONGATHA.

A dozen members of the Field Naturalists Club of Victoria visited Leongatha during the week between Christmas and New Year, coming in private cars. Local members Mr. and Mrs. Brewster, Mr. and Mrs. Rowe or Mr. and Mrs. Lyndon acted as guides each day on excursions to places of interest, to the hills, the heathlands, fern gullies and the beach, keeping, as much as possible, to back roads to avoid the holiday traffic.

Mr. and Mrs. Brooks and Mr. and Mrs. Eve came from Warragul and met us at Moonlight Creek for an inspection of the proposed National Park and a picnic by the Tarwin River.

Mr. Bob Auchterlonie came across from Narracan to show the party round the Club arboretum where Eucalyptus macrandra is blooming just now. There was considerable interest in the eucalypts and we didnt forget to show off the colorful old Candlebarks and Snowgums that grow naturally by the roadside on the ridge. The item that stole the show, however, was a potted specimen of the Blue Oliveberry in its full glory of pink fringed flowers that Mr. Auchterlonie produced from his car and kindly presented to the writer.

Naturalists from Sale to Warragul and points between gathered at Tyers on Thursday, at Miss Galbraith's invitation, to meet the guests.
We were especially pleased to see Mr. and Mrs. Irwin Faisst from Warnambool, Foundation members of Latrobe Valley Club, who had come down from Warnambool for the holidays. We were very fortunate in our weather throughout the whole week, and on this perfect summer day there was Iris Peterson in the deep shade of the venerable oak ladling out a most delectable fruit punch from a stoneware bowl.

Our visitors remarked on the wonderfully relaxed and friendly group of happy people that they met that day, and everyone enjoyed this get-together immensely. After lunch Mr. and Mrs Thompson led us on a tour of the Wirilda project, returning to the garden for afternoon tea.

We on the Leongatha side, would like to thank all fellow members who helped so much to entertain our guests and to make them feel at home during their stay in Gippsland.

E.Lyndon.

A FRIENDLY VISIT.

Saturday January 6th. in the afternoon as many members as could be contacted, gathered at Narracan in the garden of The Auchterlonies, our friends and members of L.V.F.N.C.

We were all delighted to meet again Mr. George Scanlan who was visiting the Latrobe Valley for three days. George has recently sold his home at Echunga in South Australia and at present is living at Kyabram. Victoria.
All enjoyed going over past excursions and happenings in the club. We must thank Mr. Auchterlonie for allowing us to meet in his garden, and for his trouble in leading us through some Blue Gum plantations on our way to Narracan Falls.

George really enjoyed meeting his friends once again and hopes to see us all again in the near future.

SUBMISSIONS FOR RESERVING CROWN LAND AT ROSEDALE SOUTH.

In the daily papers on Wednesday 20th. December the Land Conservation Council notified the public of Victoria that it had completed its report on Area 1. Shire of Rosedale. Copies of this report may be purchased for $2.00 each. It also stated "submissions are now invited from interested persons or bodies in regard to the use of public lands within the area".
These submissions will be considered by the council when making recommendations as to the balanced use of the land. Submissions should be addressed to the Secretary, Land Conservation Council, 464 St. Kilda Road, Melbourne and must be lodged within 60 days of this notice. The closing date for receipt of submissions is 26th, February, 1973.

Members are requested to send in personal submissions, as this will show the council that there is much interest by private persons. Your submission should set out your personal views on why these areas should be preserved. The Club will be forwarding a submission but this does not prevent individual submissions also.

I feel we should ask for all the crown land in the parish of Holey Plains to be reserved to preserve the unique silver sand heathlands there with their profusion of flowers. This also has an attraction for tourists and the many people resident in the Latrobe Valley. The Tom's Cap area, the Old Port Road and the two swamps, Black Swamp and Basin Swamp, should be reserved for historical reasons as well as for flora and fauna. The land surrounding these areas is very suitable for a reserve for Kangaroos, wallabies, emus and other wildlife.

This is the culmination of five years work by Club members and is our last chance to have these areas preserved for us and for future generations.

Please send in submissions as the Land Conservation Council will be guided to a certain extent by the numbers of private submissions.

Bon. Thompson.

ECOLOGY Address by Mr. B.Nicholson November 1972

Ecology is the study of the relationship of living things to the environment in which they live. Living things include vegetation, from the tallest trees down to the mosses, fungi and bacteria, and animals of all kinds from man to the most primitive amoeba. Environment of the living things is the sum total of the factors which affect them,including climate, soil, topography and the living things acting on parent rock material over a period of time.

The relationship of living things to their environment can be considered over a large area, eg. the world, or down to a very small area, eg. your own fish pond. These relationships are referred to as ecosystems.

Under natural conditions changes in the environment will occur, eg. bushfires, floods, drought, etc. These changes will affect the numbers and condition of the living things without wiping out individual species. Also changes in the numbers and condition of the living things will affect the environment.
For example - without fire at 200 -300 year intervals Mountain Ash forests die because conditions in the dense understorey vegetation does not allow germination and regrowth.

contd. pp7.

ECOLOGY contd.

If man destroys a vital feature of the environment then the balance of the whole ecosystem is upset and living things may not survive – Ants eat Mountain Ash seed – fire clears the understorey and decreases the numbers of ants and there is sufficient seed for regrowth.
While clearing only clears the understorey without reducing the ant population. This overpopulation of ants will destroy great quantities of the seed.

Where it is necessary to destroy natural ecosystems in order to replace them by new , more productive ecosystems, the new systems must be kept in balance. Where the balance between plants, animals and the environment cannot be achieved the system will not continue to be productive. Natural ecosystems in Western Gippsland were destroyed to create pastures to carry imported stock. In many parts the desired balance between imported plants and animals and the environment could not be achieved. The steep country did not allow for easy control of vermin, noxious weeds and regrowth of native vegetation; in fact, the difficulty of keeping hill farms clear was so great that many farms were abandoned.

Ecologists use the term flora to refer to collections of individual plant species and the term vegetation to refer to plant species arranged in communities. Just as all features of the ecosystem are mutually dependent so are the members of a natural plant association. Plant communities are described in terms of the dominant species, that is the tallest and most numerous species (plus sometimes the understorey species) and in terms of the average mature height of the dominant species and their density, eg. Mountain Ash tall open forest or Forest Red Gum woodland.

Ecological surveys are carried out by the Land Study Section of the Soil Conservation Authority of Victoria and Mr. Nicholson believes that over half of the State has already been studied. The objectives are to describe ecosystems as a guide to land use. It is done by examining the main features of the environment - climate, topography, soil parent material, soil and living things and the interrelations between them.

Mr. Nicholson then described how, with the aid of maps, etc., the boundaries of major environmental units - land zones - are decided. He related these to Western Gippsland dividing it by the topography into 3 land zones.
Land zones are again divided into smaller sections called land systems.
Characteristic land forms are affected by the underlying parent rock material so that land systems boundaries sometimes coincide with geological boundaries.

At this stage in the study an ecologist would make a tour of the major roads checking the land zones and (to a limited extent) the likely land system boundaries; and noting the main differences in the environmental features. Land system boundaries are finally determined by stereo examination of air photos and field checks. Main environmental features and land use information within each land system can be shown in a concise manner on land system diagrams. Mr. Nicholson displayed some of these diagrams.
More detailed surveys, within each land system, can be done later if required.

The surveys are published by the Soil Conservation Authority and also made available to the Land Conservation Council to aid its advice to the Government on use of Crown Lands in this State.

contd. pp 8.

Ecology contd.

Mr. Nicholson suggested conservationists should be primarily interested in conserving whole environments, whole ecosystems, rather than individual species; not only because all aspects of the environment are precious but also because all are inter-related. It is important that we should know the main plant and animal communities. In general the ecosystem is of primary importance and the plant and animal communities within the ecosystem of greater importance than the individual species. To preserve a rare orchid we must conserve the dominant vegetation above it which provides the environment it needs for survival.

Mr. Nicholson summarised by saying " Ecology is the relationship of living things to their environment. The relationship is dynamic but, under natural conditions, is usually stable. Where man destroys a natural ecosystem the new system replacing it must be in balance. To achieve this balance he must understand not only his needs for land use but also the capabilities and limitations of the land to meet these needs. Hence the value of ecological surveys.
Finally, an appreciation of the ecology of his own area is vital to the Field Naturalist from the point of view of conservation and as a proper starting point for further studies."

Bon. Thompson
(from notes supplied by Mr. Nicholson.)

Further notes on Ecology
The reference in paragraph 4 to the ants and E.regnans seed is clarified further.

E.regnans often cut in a year when no seed fall(they seed only every four years and ants normally eat most of the seed but some normally survive). In the process of logging out the forests, the undergrowth is cleared(not necessarily burnt), more wind and heat in summer, more frosts in winter.
All these conditions prevent regrowth of E.regnans and the normal lush understorey which grows later under it.
However the microclimate is very similar to that following a catastrophic fire. The essential differences are that(unlike the situation after a fire) ant populations are not reduced but multiply and gobble up nearly all of the remaining seed, there is no ash bed rich in nutrients and so no E.regnans regeneration.

Meeting of the Latrobe Valley Naturalists for January will be held in the YALLOURN LIBRARY January 19th. This will be a Film Night.
No supper at this meeting. From February we will meet as usual in the Yallourn State School.

Committee Meetings. During this year these meetings will be held on the Tuesday before the General Meeting. the only change is January when the meeting will be held January 23rd. at the home of Miss Galbraith.
Any member of the club may attend these meetings if they have any suggestions.

The 1973 program will be ready for the February Meeting.
Miss Helen Aston will speak at the meeting February 23rd. and will lead an excursion the following day to Sale Common area.

Details of contributing clubs are as follows:

LATROBE VALLEY F.N.C.

Honorary Secretary: Mr. S.Belgraver
179 LLoyd Street,
Moe. 3825.

Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN

SALE F.N.C.

Honorary Secretary: Mrs. K.Newnham,
P.O.Box 302,
Sale 3850. Tel. Sale 441406

Meetings commence at 8.00pm on the 1st Friday each month at the C.W.A. Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mr. J.A.Wall
156 Kay Street,
Traralgon. 3844. Tel. T'gon 741948

Meetings commence at 8.00pm on the 1st Friday each month at the Grey Street. State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr. J.Brooks
3 Nobel Street,
Warragul, 3820. Tel. W'gul 21563

Meetings commence at 8.00pm on the 3 rd. Friday each month at the Albert St. State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect of Natural History are invited from members of all clubs and should be addressed to:

Honorary Editor (Mrs. L.Padfield)
42 Strzelecki Road,
Yallourn. 3838.

Subscriptions payable to the Honorary Treasurer:
Mrs. E.Lubcke,
122a Helen Street,
Morwell. 3840.

If transport is needed on excursions please contact Mr. H.Crane
Tel. Yallourn622215.

FEBRUARY, 1973

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COMING EVENTS

Latrobe Valley F.N.C.

Meeting: Friday February 23rd.
Miss H.Aston " Developing trends in Natural History observing and recording in Australia".

Excursion: Saturday 24th. February
Meet at Lake Guthridge(Sale) 10 am.

Warragul F.N.C.

Meeting: Friday February 16th.

Contact Secretary for further details.

WHITE -THROATED NIGHTJAR NESTING AT ROSEDALE

On a recent excursion in company with Sale Field Naturalists Club, in the Rosedale Longford area, a large party of us were trailing through open dry bushland when we flushed a large brown bird whose identity we could only guess at. It was Goshawk size but to me it was a complete stranger.
Each kind of bird is completely different in its way of rising, its flight, its method of weaving through the treetops as it disappears from sight; an indefinable difference but a difference none-the-less. So hoping for some clue that might lead to definate identity I began to search the ground round the spot from where it had apparently risen.

The grass was thin and dry with a carpet of fallen gum leaves and twigs further complicated by a mottled pattern of light and shade filtering through the tree above. A hawk would most likely have been eating something.
It was some time before the large egg came into focus, big as a bantam's egg, a sort of creamy pink shell with light and dark livery spots, if I recall it rightly. A single egg with no attempt at a nest could only belong to one of the Nightjars. Later, with the help of Cayley we saw by the description of the egg that the bird had been the White-throated Nightjar. A bird, I think, new to us all.

Later research, per Harry Frauca's "Australian Bush Birds" led to pictures of the bird on the nest, so beautifully camouflaged as to be almost invisible even when the observer knows he is staring at it. As many as three broods may be produced, one egg at a time, the incubation period often over-lapping, so that a large young and a fresh egg may keep each other company at the same time.
The newly hatched chick is soon on its feet and can run quite fast.
But it mainly relies on its protective coloration and stays put. Both birds share incubation duties.

Like the Podargus or Frogmouth (it nests in trees) the Nightjars have a small bill but an enormous gape, the whole head seems to open, and they catch flying insect prey on the wing by hawking at dusk. As the breeding season lasts from September till January approximately, search should be made in this fast vanishing forest for other nesting Nightjars.
The chicks should be worth seeing. Perhaps another good reason for retaining some portion of this most interesting habitat.

E.Lyndon.

VERSE FOR THE SKIPPER BUTTERFLIES.

All through the day in the heat of the sun,
With only the flies to torment one.
The Magpies Carols come floating by,
Where Skippers of the Sword-grass fly.

C.G.L.Gooding

ROCK AROUND THE VALLEY.

The sheer immensity of the forces of nature are often hidden from us and it is only in times of catastrophic floods, fires, earthquakes or storms that we become suddenly aware of their prescence. Yet the slow and inexorable effects of erosion by wind, water, and even air are, in the long run, far more important. The land around us is changing the whole time but, because of our short life span, we are virtually unaware of the impermanence of our surroundings. In just the same way as a series of photographs of a flower can be speeded up to show rapid movement in growth of the petals, so also could the same effect be created by a series of photographs of the land surface. In most cases, of course, this would be impracticable because natural changes in the outlines of the surface are generally so slow, in relation to human experience, that the photographs would be virtually identical.

Fortunately, it is possible, from an examination of the rocks, to piece together past geological events and to reveal a picture of the changes which have occured over these vast periods of time.

As far as the Latrobe Valley is concerned, the picture which emerges is one of fascinating change. As far back as 400 million years, before the existence of any land animals, seas extended over the whole region. The seas contained primitive shellfish, sea lilies, corals and other organisms which became fossilised and preserved within the rocks. Some of these can be seen, even now in limestone alongside the Tyers River.

Three hundred million years later the open seas had gone and a huge river delta lay over the area. Sands and clays which were carried along by these river eventually dropped to the bottom of the streams and later became cemented into the rocks of the Strzelecki Ranges. So, if you break open a rock of the South Gippsland Hills, then its more than likely that the last time the sand grains saw the light of day was over 100 million years ago.

As geological time goes, the Latrobe Valley is a fairly recent feature, even though it was probably in existence some 60 million years ago. Then, as now, it was a wide valley which had been let down between the faults or breakages in the earlier rocks. The faults extended deep below the sides of the valley and gave ready access to deeper zones withinthe much hotter underlying rocks. Some 60 million years ago, molten lava poured along the faults to erupt on the surface in volcanoes. Little wonder that the country around Thorpdale is reminiscent of similarly well watered volcanic soils in the North Island of New Zealand.

After the volcanoes had died down the flat area of the valley floor became covered with thick forest vegetation. Plants like the Queensland Kauripine, the western Tasmanian Celery Top pine and the local Banksias, grew on these swampy flats, died and fell into the mire. As they sank slowly into the swamp more trees grew up to replace them and, at the same time, the ground slowly subsided to keep pace with the accumulation of plant debris.

Earlier layers of peat became covered with the leaves, bark, roots and woody trunks of a continuing procession of later forests which, in turn, flourished and then died. The mass of overlying debris weighed down on the earlier swampy peats compressing them and squeezing out the watery fluids.

cont.pp 3

ROCK AROUND THE VALLEY. contd.

In this way the brown coal seams were built up. Sometimes a river swept through the swamps killing the trees and dropping sand and clay over the peat. Further east, meanwhile, rivers were pouring sediment into the seas off the present site of Lakes Entrance.

Drills have now penetrated into these sediments to tap the large quantities of gas and oil which are contained in minute spaces within the rocks.

With all these continuing events it is easy to lose sight of the fact that the Great Dividing Range is a fairly recent addition to the scene, being essentially thrown up after the last coal seam was laid down some 20 million years ago. In the long course of time these mountains together with the rivers, lakes and vegatation will change and new forms of life will replace the present inhabitants. The environment which we see around us in the Latrobe Valley, or indeed anywhere on the face of the globe, is not the end of the line but merely a stage in the continuous process of natural change.

We must ask ourselves therefore, can we really afford to ignore the rocks around us, for it is these very rocks which provide a key to unlock the changing kaleidoscope of events making up the geological history of the Latrobe Valley.

Dr. Colin Barton,
regional Geologist S.E.C.

We thank the editors of the magazine Contact for permission to reprint the article by Dr. Barton.

MORE SNAILS COLLECTED.

The shell collected by Mr. Moretti on the Channel Country excursion has been identified as Pygmipanda kershawi, the species we previously found at the National Park at Spermwhale Head.
As this species was thought to extend no further west than Lakes Entrance, our club has helped with the distribution records.

A small pointed snail recently collected by Miss Galbraith and Miss Christensen in the Boola area, was the very wide-spread species Cochlicella ventrosa. But a round empty shell collected on the same day was a new genus for our club. It was a Strangesta species but further identification was not possible. It has not before been collected by any of our members.

Miss Plant, of the National Museum of Victoria, wishes to thank the club for our co-operation in distribution reports and says she thinks the Museum will still be welcoming specimens for the next few years.

Bon Thompson.

THE VALLEY WHERE TWO RIVERS RISE.

On the first day of the 1973 "camp" a courtesy title only since we lived very confortably indeed in a ski-lodge - six members of the L.V.F.N.C. arrived at the Baw Baw Lodge and were made very welcome by our host and hostess Mr. and Mrs Hutchinson. As well as being a member of the ski club Mr. Hutchinson belongs to the Warragul F.N.C.

Without waiting for fellow members - but leaving a message for them, five of the six left at 9 am.on Saturday for the valley north of the Baw Baw summit ridge, accompanied by Mr. Hutchinson as far as the summit.

We were amazed to find the pleasant foot track following the creek and the snow pole line accompanied, sometimes engulfed by, a broad cleared track which since the butts of all trees and bushes cut have been left several inches high, was unconfortable to walk on. Most of the time we walked in single file up the old track, and found many of the small plants that grew there unspoiled though some lovely associations have gone. Fortunately the vegetation, cut but not grubbed, will probably grow again quickly, so so what could develop into an eroded swathe along the creek will not be as dangerous or unsightly as we feared at first.

From the summit we followed the Whitelaw track down the rocky north face, seeing along it most of the small treasures that delight us on the south side, and soon were amongst the sphagnum beds and pools and clear runnels of the valley, which is broad and relatively level, with a low ridge across it, somewhat to the west, forming the water shed between the headwaters of the West Tanjil River and the West branch of the Tyers River.
The valley was sprinkled with flowers - Richea continentis, Celmisia asteliifolia Brachycone scaperiga, Drosera arcturi - a few yellow stars on Asterolasia trgmalioides ,a few willowherbs epacrids etc, but the brighest colour came from crimson fruits of the Carpet Heath (Pentachondra) and the scarlet fruit-stalks of Exocarpus nana. Less conspicuous were the red berries and brownish flowers of Coprosma pumila with their tassels of stamens , or immature fruits - and so inconspicuous was the rare plant which was the special goal of this writer that we were amazed that Alan Morrison was able to lead us almost straight to it - after having found it on a previous visit. The plant was Coprosma moorei Turquoise Coprosma a dense mat of much darker more pointed leaves than those of C.pumila dotted with pale blue slightly flattened fruits.

After it had been photographed and admired we scattered over the valley, finding every yard interesting, drinking from the clear water of streams which join toward the southeast end of the valley to form the beginning of the West Tyers River. The middle and East Tyers rivers rise near Mt. Erica and thethree join near Tyers Junction to form the river we know in the Latrobe Valley , near its junction with the Latrobe River.

We gathered for lunch near our little mat of Turquoise Coprosma and began our leisurely (and rather warm) walk home at 2pm.meeting various fellow members on the way.

Jean Galbraith.

EXCURSION MARSHAL.

There has been discussion at recent committee meetings about the appointment of an Excursion Marshal, to save time and to make sure everyone knows what is planned. Members will be asked to vote on whether they are in favour of this at the next meeting.
Below are our tentative arrangements, which members need to remember.
An Excursion Marshal to be appointed from volunteers, for each excursion.
If possible appointment to be made in time to appear in that month's NATURALIST, or at latest at the meeting the day before the excursion.
Excursion Marshal to have a whistle for calling members together.
Leader to be at head of party, and Marshal to have responsibility of delegating someone to be the last car.
Loud toot of car means STOP. One Whistle means Start in 3 minutes.
Two whistle blasts mean "Come to Leader".
Cars to assemble as near as practicable to excursion, and to leave on time (5 minutes grace only for members known to be coming but not arrived).
Before Leaving Marshal to make sure general itinary is known to members, leave written instructions for late comers at an agreed point (announced at meeting) and make sure that he knows the area and route himself.
Morning Lunch, Afternoon tea etc stops to be announced by Marshal(meals to be taken only at these places).
Toilet stops on long excursions by 2 horn blasts.
Last car to have written instructions unless quite sure of route to be followed.
Cars to travel well apart, at reasonable speed(35 -40 m.p.h.) to remain in same order all the way (special circumstances excepted) in which case to tell last car.
No car or member to leave party without telling the last car, when driving or Marshal when walking.
Each car to be responsible for the one behind it at all corners and crossroads. THIS IS IMPORTANT. Corners to be marked where necessary for late comers.
These rules are not meant to regiment our excursions which have always been informal and friendly, but to add to everyones comfort and enjoyment.

" WHITE" BIRDS.

There has been at Tyers for a number of years now an Indian Myna which has an all white tail and rump.

Last September and again in January a "white" Blue Wren has been seen. It has a white head and nape. His tail was turning blue.
Now I am told of a magpie in my area which is a light grey and white instead of black and white. As yet I have not seen it.
Have any other members ever noticed other "white" birds ?.

Heather Christensen.

News from Bendigo F.N.C.

The Forest Commission has declared the Bendigo Whipstick area a Forest Park.
All Field Nats welcome this announcement and would hope for more such newsitems.

ANT LIONS.

After the October Bird excursion we went back to try to photograph the little Thornbill coming out of the nest in the skull.
Where we stopped the car there were a great number of little conical pits about 3/4 in. to 1 in. across and about 3/4 in deep tapering down to a point.
These were the insect traps of the Ant Lions. Ant Lions are the larva of one of the Lacewing families. The female lays her eggs in the soil in sandy conditions.
After the larva hatches out it constructs this typical crater.
It then hides in the loose sand in such a way that its jaws are at the bottom of the pit. The Ant Lion was only about 1/4in long, a grey colour similar to the sandy soil at Cowwarr and has big jaws that look like claws.

We watched an ant stumble into the pit and the larva was unsuccessful in grasping its prey so the ant tried to climb out.
The Ant Lion tossed sand over the ant until it fell to the bottom and then this time the ant lion grabbed the ant by the back leg.
However the ant must have been too big as it managed to break the grasp and escape. The next ant to be caught in the trap was smaller and after the ant lion had thrown the sand up on it a couple of times the loose sand caused a miniature land slide bringing the ant back within reach and the ant lion caught it and this time pulled it under the loose sand.
Ant Lions extract the body fluid from their victims.
We spent quite a time fascinated by these insects.

Bon Thompson.

FAST GROWING WATTLES.

My young Acacia cyanophylla has grown 16 in. in three weeks.
Others may be interested in this, as I find there is rather a lack of information on quick growers in any references.

This species seems to be a consistently good performer. I know of several in different conditions which have astonished their owners. Here its quick growth is challenged by an Acacia biternata which is the same height with four months less in the ground, so that its performance is better, but another A. biternata is growing much more slowly.

N.T.Rossiter

JANUARY MEETING L.V.F.N.C.

January 19th. the meeting was held in the Yallourn Library Activities Room. This took the form of a film night in which several members showed slides from various places in Australia New Zealand and other countries.
These slides were all of a natural history interest.

After the meeting we were all invited to have supper at the home of Mrs.Crane. It was a warm night so we all accepted without delay.
This was a very nice way to conclude the January meeting when so many are having their vacations.
Thank you Mrs Crane for your kindness.

WATER BIRDS NEAR MARCOCHYDORE, QUEENSLAND.

On the way to Dunithin Rock the views were lovely with acres and acres of sugar cane just ready to cut. Some hadstarted cutting and the little trains were in the fields loaded with bundles of cane like long brown sticks.

We stopped first at some mud flats amongst mangroves and we saw Eastern Curlews for the first time, fishing from a sand bar, also Sooty Oyster-catchers and a great flock of Royal Spoonbills with their long black spoons for beaks. As they fish they waggle their spoons from side to side like beating a cake. We also saw Crested Terns, very graceful, and smaller (13 in)White-fronted terns which are also lovely flyers. I saw one turn suddenly upside down in the air and dive down to the water. They must have marvellous eyes to fish under the water. They fly with heads turned down toward the water and beaks ready to jab. Then a Little Egret settled down quite close and two white ibis and a White-fronted Heron and a Sacred Kingfisher.
As we drove on we saw a pair of beautiful Whistling Eagles in the sky.
Charles had just said they usually see them there. He hoped to show us Jabarius (the only true crane in Australia) but they were not there this day.

May Galbraith
From a letter.

BIRD NOTES FROM LEONGATHA.

A few months ago there was an angry outcry in this town about the activities of a pet and pest poisoner in the Housing Commission area.
Family pets were baited in their own yards and the stray cat population, always a problem around the hospital, where they are presumably dumped, was almost completely taken care of. But its an ill wind that blows nobody good.

There has been a noticeable change this spring in the population of the smaller birdlife in the park. Hitherto it was mainly the Blackbirds and Goldfinches that braved the cats sufficiently to make nests.
Few of their young survived.

The Blue Wrens are back, full of confidence, feeding two young and bedding them down, with much cooing and cuddling, in the thick Pittosporum that shades our back porch. The nest was eventually located across the road in Melaleuca micromera, a dense pine-like bush tied together with string to prevent its multiple branches falling apart.

Today we saw the Striated Thornbills carrying food into an equally dense Acacia buxifolia. At least, I think these are the Striated variety, although the Brown Thornbill is very similar. The habitat suggests the latter.
It took some concentrated searching to locate this nest without too much disturbance of the bush and too much upset to the parent birds. Scrub Wrens have moved in and the Cranky Fans are also behaving in a proprietorial manner.
May they too nest in peace. The small Bronze Cuckoos pipe all day from one garden or other, awaiting their chance to drop an egg in somewhere.

E.Lyndon.

REPORT OF COMMITTEE MEETING HELD JANUARY 23rd.1973.

Car Stickers. Miss Kemp reported that we were almost out of supplies. There seems to be some problems now with the printing process. This was left to Miss Kemp and the printer to overcome.
It may be that future car stickers will not have any other means of identification except the design.

Excursion to Refuge Cove. It was decided to have a boat trip to Refuge Cove. Mr. Mofatti will arrange details with Mr. Roberts(boat owner). Suggested time is in the month of March, more details later. This excursion will be extra to our normal monthly excursion as the numbers will be limited to 20 people. Also there is approximately 3 hours travelling each way by boat thus eliminating some members who would normally attend excursion.

Special meeting in April. We were advised that Mr. Beauglehole would be pleased to give a talk to L.V.Naturalists. Details later, subject to be "Plant recording on Grid System".

Index for Naturalists. Max Thompson has completed the index from the first issue up to December 1972 a total of 108 issues.
The index will be published separately and will be sold to members wanting same.

Excursion Marshal. There was much discussion on this subject, and on the rules for excursions etc. which will make our excursions enjoyable for All.

Contacting Members. Miss Christensen had an idea for members to contact each other for special meetings, outings etc. when there is no time for notification via the "Naturalist".
A paper to get names and telephone numbers will be at February meeting ; anybody unable to attend should contact Miss Christensen ,Tyers 3844. Phone 918 227.
This will enable a roster of names to be drawn up for future occasions.
NOTE. If your name is not received it will be taken for granted you do not wish to be included.

Next Committee Meeting. will be held February 27th. at the home of Mr. and Mrs Lubcke 122a Helen St. Morwell.

Supper roster February 23rd. Mrs Peterson Mrs McElroy.

Land Conservation Council Submission.
There was much discussion on this matter and the need for private individuals to submit requests to the L.C.C. for the future use of the Rosedale, Holey Hill area was emphasised.
The Club submission is now completed. Address for submissions is:
THE SECRETARY, LAND CONSERVATION COUNCIL 464 ST.KILDA ROAD. MELBOURNE.
Closing date is 26th. February.

Committee Meetings. At the Annual Meeting in March a notion will be put forward for members to vote on.
That in future, committee meetings be held before the general meeting thus enabling the committee to attend to correspondence promptly, an in the hope that visiting speakers will be able to commence their talks on time.

I wonder if general club members realise the time which the people who attend committee meetings give so that our meetings are not taken up with correspondence etc. so that we can have interesting meetings for all members.

Details of contributing clubs are as follows:

LATROBE VALLEY F.N.C.

Honorary Secretary: Mr. S.Belgraver
179 LLoyd Street,
Moe. 3825.

Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN

SALE F.N.C.

Honorary Secretary: Mrs. K.Newnham,
P.O.Box 302,
Sale 3850. Tel. Sale 441406

Meetings commence at 8.00pm on the 1st Friday each month at the C.W.A. Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mr. J.A.Wall
156 Kay Street,
Traralgon. 3844. Tel. T'gon 741948

Meetings commence at 8.00pm on the 1st Friday each month at the Grey Street. State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr. J.Brooks
3 Nobel Street,
Warragul, 3820. Tel. W'gul 21563

Meetings commence at 8.00pm on the 3 rd. Friday each month at the Albert St. State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect of Natural History are invited from members of all clubs and should be addressed to:

Honorary Editor (Mrs. L.Padfield)
42 Strzelecki Road,
Yallourn. 3838.

Subscriptions payable to the Honorary Treasurer:
Mrs. E.Lubcke,
122a Helen Street,
Morwell. 3840.

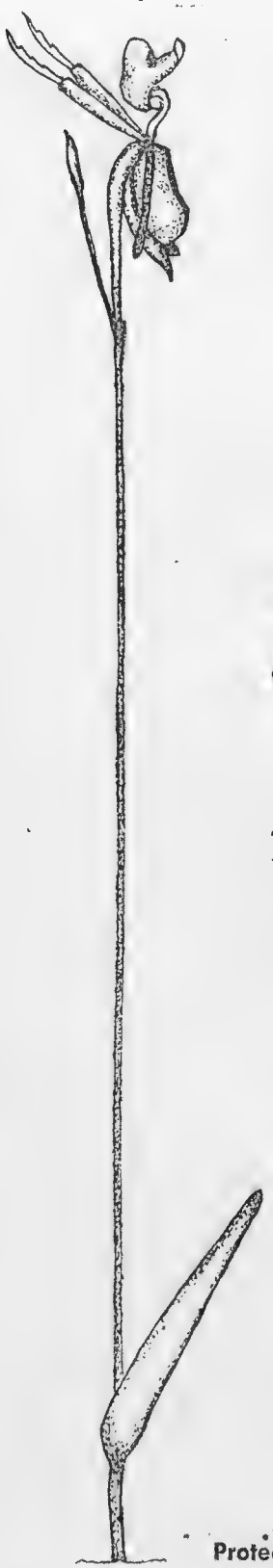
If transport is needed on excursions please contact Mr. H.Crane
Tel. Yallourn622215.

2nd March | [illegible] ?

5th Oct | Birds | Joy Johnstone | Valencia/Kilторy Creek

MARCH, 1973

ISSUE No. 111.



Latrobe Valley Naturalist

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COMING EVENTS.

Warragul F.N.C.

Meeting :	Friday March 16th
Speaker:	Miss.B.Kemp " Findhorn Tape"
Excursion:	Sunday 18th. March. Final details at meeting.

Latrobe Valley F.N.C.

Meeting:	Friday March 23rd. ANNUAL MEETING Members Night(slides).
Excursion:	Saturday March 24th
Meeting PLace:	Dumbalk Road and Sth. Gippsland Highway. Leaving at 10.00am.
Special Excursion:	Saturday March 17th. to Refuge Cove.
Meeting Place:	Welshpool near Jetty at 7.00 am
Special Meeting:	Friday 6th April at Yallourn State School. Mr.C.Beauglehole

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Traralgon F.N.C.

Meeting:	Friday 6th. April Mr.Bob Gaulton Fossils and Coal Formation
Excursion:	Open Cut S.E.C. Morwell.

Conservation Council of Victoria.

Annual Meeting:	Friday March 30th. at the Shell Theatrette Bourke and Willian St. Melbourne.

Warragul F.N.C. April activities.

April 8th. Sunday. Meeting place:	Excursion with Geology group of F.N.C.V. Queen St. Park , Warragul at 11.30am.
April 13th. Friday Speaker:	Meeting(please note change of date) Mrs Lyndon " Western Australia in Springtime"
Excursion:	To Powelltown area during the weekend.

A BRIGADE OF BOTANISTS ON BAW BAW - (CAMPOUT JANUARY 1973)

Six of our members formed the vanguard of our weekend invasion of the Baw Baw Ski Lodge, arriving on Friday Night. They hailed from such diverse places as Melbourne, Tyers, Wulgulmerang and Portland, so indeed, to mis-quote Banjo Patterson - "All the tried and noted botanists from places near and far
Had mustered at the Ski Lodge overnight . . . "

The rest of us were content to arrive in detachments on Saturday morning. Our hostess Mrs. Hutchinson welcomed each arrival with biscuits and coffee . Mr. and Mrs Hutchinson are members of both the Ski Club and the Warragul Field Naturalists, and their interest and co-operation contributed greatly to our enjoyment of the weekend.

Most of the morning was spent in a rather hilarious state of settling in. Reasonably intelligent conversation was apt to be interspersed with remarks like, " Which bunk do you want"? " Is this our section of the fridge" ? " Gee, Hot showers " !

We were very pleased to see our President and son Tony arrive- if only for the day - and we lost no time in contacting our Allies who were already ensconced in their individual lodges. There were approximately 18 members in Bairnsdale division, 12 in Sale and 25 of our own forces.(Re-inforcements of2 from Warragul arrived on Sunday, one of whom we suspect had been officially declared"out of action", but he was determined to join in the fray).

After lunch we set off for the summit of the mountain, with many a diversion on the way; and as though it had been a pre-arranged manouvre, who should we encounter there but our Valiant Vanguard returning from their days reconnoitre over the top!

Sunday morning, early, eleven men and one lady(brave soul) set off in the direction of Mt. Whitelaw, briskly. Sunday afternoon, late, they returned. . . not quite so briskly . . . declaring eagerness to do it again - but not tomorrow.

Mrs Hutchinson had suggested that the four clubs might enjoy a get-together at the lodge that night, and believe me, we did just that - about 50 of us all happily sharing experiences, books and specimens, while also managing to consume a hearty supper.

On Monday morning, after two perfect days , the cloud came down over the mountain, encircling us as though wanting to delay our retreat, but goodbyes had to be said.

There was a last walk along the creek for the group searching in the swirling mist for a small flower that had been seen the previous day.
It was a variety of Eyebright found only in the Baw Baws and some of the botanists wanted a photograph. Yes, they found it again!

No need for anyone to ask as we parted, " Djavagoodweegend" ?

June Lubcke.

SOME FLOWERS AT MT. BAW BAW DURING CAMPOUT WEEKEND.

Despite the dry season there were many treasures to be found on Mt Baw Baw. The Triggers were the usual deep pink we associate with them in the alpine country, but many of them had finished flowering.

The Cascade Everlasting (Helichrysum secundiflorum) displayed its lovely white clusters of flowers wherever we went.

The Alpine Water-fern (Blechnum penna-marina) is a common fern in Alpine areas. The Mountain Clubmoss (Lycopodium fastigiatum) with its long clubs is another alpine plant that is not uncommon. However the prostrate plant of the Spreading Clubmoss (Lycopodium scariosum) found in the sphagnum bogs, especially near the lodge, is extremely localized and rare in Victoria, known only from the Baw Baw mountains and the Bogong High Plains.
The third species of Lycopodium on Baw Baw (L.celago)with spores at the leaf bases was also seen.

The Candle Heath (Richea continentis) is a rigid shrub with sharp pointed leaves. The creamy flowers grow in tall erect spikes and the " petals" form a little conical cap which falls off intact to expose the stamens and style.

The Alpine Trachymene (Trachymene humilis) has a head of small pink and white flowers. At Baw Baw the short stalk results in the flower being almost on the ground.

There were several golden "daisies " flowering. The single flowered Alpine Groundsel (Senecio pectinatus) has soft golden petals with a deep orange centre and leaves that are noticeably toothed. The Alpine Podolepis (Podolepis robusta) has several flowers on one stalk and the "petals" are divided into three at the tips. The bracts on all Podolepis flowers are transparent The Orange Everlasting (Helichrysum acuminatum) with its deep orange paper like "petals was only in bud, with only one or two early flowers north of the main ridge.

The Baw Baw Berry (Wittsteinia vacciniacea) had finished flowering and the berries were only partially formed.

The White Eyebright (Euphrasia gibbsiae var. subglabrifolia) of which we found only a few flowers, is endemic to the Baw Baws.

Some of the tiny plants identified were the lovely pale blue Sky Lily (Herpolirion novae-zelandiae) found flowering in two places; the Alpine Cherry (Exocarpus nanus) with many delightful red " cherries " and the Carpet Heath (Pentachondra pumila) forming dense carpets over the rocks. Its heathlike flowers and large red berries were very photogenic.

The Mountain Gentian (Gentianella diemensis) is the only representative of this genus in Australia although New Zealand has 24 endemic species. Its lovely white flowers with fine purple veins were seen everywhere.

contd.

SOME FLOWERS AT MT. BAW BAW AT CAMPOUT WEEKEND contd...

Three orchids to attract our attention were the Mauve Leek-orchid Prasophyllum suttonii - displaying its lovely white and mauve flowers in large numbers; the Alpine Leek-orchid (Prasophyllum alpinum) - but the beautiful blue Veined Sun-orchid (Thelymitra venosa) was quite plentiful in some bogs. Many of these Sun-orchids had several flowers on the one stalk and we even found a white specimen with blue veins.

The Snow Daisies (Celmesia asteliifolia) with large white flowers and silver-backed leaves grew everywhere. They are always part of the alpine scene.

It is not possible to mention every flower we saw, but I hope all present had as enjoyable a weekend as we did.

Bon Thompson.

WESTWARD HO ! 1972.

En route for West Australia in mid August '72, with the van on, we slipped through quiet Gippsland and sleeping Melbourne on sunday morning to join the madding crowd speeding along the Calder Highway.

We hoped to make Pinnaroo inside the South Australian border that first day but didnt quite make it, due to an unforeseen delay along the road. A brilliant full moon found us camped on the hot sand of a lignum swamp in a wide dry creek bed somewhere beyond Nullawil in the droughty desert of the wheat mallee. It was a well used overnight stop, judging by the heaps of cooking stones and the artifacts of the paleface tribe. And in the dawn it was silent spring, except for one lone "sweet pretty creature" about 6.30. Under the long concrete bridge of the road were hundreds of deserted nests of the Bottle Swallow. Our bird list says only four Kookaburras noted in Victoria a dozen Kestrels but only two other hawk species. On that cold and brilliantly sunny morning we breakfasted just out of Sealake, overlooking Lake Tyrell, with Seagulls begging at the door.

The road across the Big Desert is certainly good travelling on sound bitumen but the plantations of small mixed eucalypts are not anywhere as attractive as the vanishing naturally landscaped native mallees.
Like old world cathedral villages these wheat siding townships enclose their clusters of wheat silos. Instead of used car yards, as in southern towns , the dumps contain heaps of rusting wheat-farm machinery.
We were dismayed to note the numbers of empty shops and the general ghost town appearance of many of them. A few clumps of low bright wattles and gutter strips of yellow twin-leaf or fireweed; flowers were few.

Winter woollens were discarded as we crossed the border and turned north for Loxton on the Murray. Here we hadseen wonderful bush , now bashed or burned or rolled and regrown, the devastated dunes blowing like smoke before the wind.

contd.....

WESTWARD HO ! 1972. contd...

Some of these old dunes were so high and so steep that the tough native vegetation could scarcely hold the sand. Surely such terrain should never be cleared. Much later we learned that at Peebinga some of it has been reserved as a National Park. Once we passed a pair of lovely Mallee-fowl feeding on the road verge and later another by itself. In the distance where dense mallee still fringed the cultivated strip Emus were out feeding.
I counted about 27 scattered in small mobs. Only one rabbit was sighted along this desert road stretch.

Loxton was irrigation, grapes and oranges and tipped over peach trees. The Murray spreads out hereafter into lakes and lagoons and Pelicans galore.

The camping ground at Waikerie on that noble river shelters behind a levee bank on a reclaimed flat among the reedbeds, and the night-long cries and whistles and squawks of the waterfowl were punctuated by the screeches of the insommniac Galahs overhead. In the morning came the big thrill of rolling down the steep bank on to the ferry; the long views mid stream up and down the river with its high cliffs below the substantial town, the many gay houseboats and big wharves. Amusing too, to watch the commuters tearing across the low flats of the opposite shore, horns blaring madly to the ferryman "Hey! wait for us! ".

We drove around the curve of the Murray through burgeoning orangeries alternating with saltbush plain to Morgan, beautiful and mellow by reason of its old stone buildings. The streets fall sharply over the high river escarpment to the strip of green lawns and red gums below.
Ferries ply busily back and forth across the broad river below the towering wharves of another era. In all of these river towns, where the stream-bed lies at the bottom of a verdant slit in the desert plain, it is distressing to see the lush reedbeds and shallow swamps, haven for so many birds, being steadily filled with rubbish and topped with soil to make wider flats and parks for a greedy people.

Most naturalists we know head west through Burra and Orroroo, which route, we imagined, must be the promised land of interesting flowers and bush.
We were to come home that way later and were astonished to find the country as bald as the proverbial egg, just bare wheat plains or grass. Perhaps they travelled at night? Now we are advised to avoid this short cut and go through Eudunda.

Leaving Morgan the long straight road cuts across an ancient sea floor, the limestone deposits disguised under a thin film of sand. Under cultivation, however, the broken chunks of stone come to the surface and present, in this dry year at least, a landscape of complete desolation.
Sometimes the stone is scraped into heaps among the wheat. Road cuttings show the more or less unbroken stone below. Ruined stone cottages, long deserted, may sometimes look picturesque but hardly lend an air of bustling fertility. An occasional hardy mound of wattle or a stretch of native pines broke the monotony of the struggling wheat but little really good natural eucalypt mallee remains here.

contd....

WESTWARD HO! 1972. contd...

From Eudunda we travelled all day through fat green rolling country dotted with prosperous towns, a rich and lovely land. Sometimes our outfit resembled a tiny white ant crawling across the immensity of wheat plains under the inverted saucer of the sky.

Shady trees being few and far between in the settled country we pulled into an ornamental roadside plantation for lunch. Some of the handsomer West Australians were doing excellently, the seedpods of E.forrestiana and E.staoteii being beautifully coloured. Sometimes the road verges were interesting and at others the double row of phone and power poles ran unadorned for mile after mile. Kestrels hovered over the long grass and at a creek crossing we met the first small party of Black-tailed Native Hens that became so plentiful in the west. They startled us at first sight by looking exactly like Brown Leghorn bantams.

Towards evening the Southern Flinders Range loomed large ahead and we passed through the most inviting little town of Melrose nestled at the foot of a hill. The whole place was embowered in enormous red gums on green flats, rich, I am sure, in bird life. Very reluctantly I was borne on to hot Wilmington on the edge of the great Willochra Plain and soon we were climbing through Horrocks' Pass. Here was striking scenery through bald hills and past precipitous gorges, the road falling steeply down the western face with dips and humps scored by the furrows of innumerable tow bars. Small pockets of these magnificent gums contrasted with the bare red rockfaces and a few solitary grasstrees stood sentinel on the tops. No wonder they are sometimes called Blackboys.

Below us lay the great rift valley of the South Australian gulfs, flat and sullen, so that it was hard to tell where the sea left off and the saltbush plain began. It is all fenced and homesteaded but we poor simple southerners marvelled that stock could live on it. And so to Port Augusta and the safari-haunted caravan park, where tourist buses discharged their tired and dusty occupants to overcrowd the amenities and finally lie down to sleep on the hot hard gravel.

E.Lyndon.

March excursion. Led by the Brewsters and the Lyndons.
Meet at the familiar place at Moeniyan then to Yanakie via Foster.

We will stop at the roadhouse and again just past it on Shellcot's Road to inspect the old sandpits which were reserved last year.

We propose to lunch at Point Townsend where the Crimson Berry grows, but dont expect the berries will be at their best for another month. This is at the end of Foley's Road which turns left to Corner Inlet a couple of miles past the roadhouse. We can allow a couple of hours hereabouts as there is some interesting heathland. The rest of the day may be spent on some of the back tracks on what was Yanakie Common but is now part of the Nat. Park as long as required.

Signs can be left at crossroads. Full details at meeting.

note from Mrs. Lyndon

EXCURSION TO SALE. FEBRUARY 24th. 1973.

Twenty eight members of L.V.F.N.C. gathered beside Lake Guthridge in Sale at 10.am, in fine weather.
Mrs. G.Webb,a member of Sale F.N.C. met us as she was the leader for the day. The cars were driven to a selected area near the fauna reserve, and there we stayed for some time. We were able to observe the many birds on the lake, this was mainly due to the lack of water on the Sale Common.
There were several White Egrets, Swans, Eastern Swamp Hens, Silver Gulls,and many others, Altogether 37 species were seen on the lake itself.
Most of the party went for a walk around the lake and all agreed it was well worth the effort.

After a talkative lunch break we then walked around the fauna park area. This area was originally the Botanical Gardens of Sale, so there were many fine old trees there.Around the wildlife enclosure we saw Kangaroo, Wallaby, Emu, some white rabbits and a few birds. One Koala was in a treenear our lunch area.

Later in the afternoon we travelled by car to the Sale Common.
Here we saw three Magpie Geese in a large enclosure, which had been erected by the Fisheries and Wildlife Department.

We left the Common and drove along the South Gippsland Highway until the Rosedale turnoff, where we travelled along past the Pine Plantation areas, to a large area of Banksia serrata and eucalypt area.
Most people walked along a track (Covered with ants) and 13 more birds were recorded there.

We completed what had been a most interesting daywith afternoon tea(and more talk) on the side of the road.
Mr. Thompson said thankydu to Mrs Webb, on behalf of all present who all agreed with his remarks. Everyone then made their own way home.

Rhonda Raven.

SPECIMEN TABLE February 23rd.

Banksia serrata , Banksia caneii.
Melaleuca sp?
Eucalyptus calophylla (pale yellow flowers) The Marri.
Patersonia from Inverloch area. This had a long leaf and wide short flower. Herbarium says P.fragilis. Two specimens showing variation .

Australias only Rhodendrom ,R.lochae (Queensland) This was an old plant with its first flower. This was a beautiful red flower.

All the above specimens were brought by Mrs Lyndon.

A visitor at the February meeting was Mrs Jacka from Warnambool.
We were all pleased to meet someone from another club , when visiting our area.

LATROBE VALLEY FIELD NATURALISTS CLUB.

Nomination form for office.

I wish to nominate . . . . . .
of . . . . . ;
for the position of . . . . . of this club.

Proposer. . . . . .

Seconder. . . . . .

I hereby agree to accept nomination for the above office in the Club.

THE ANNUAL MEETING OF LATROBE VALLEY FIELD NATURALISTS CLUB.

Meeting will be held at Yallourn State School on March 23rd. at 7.30 pm. Election of Office Bearers.

Nomination Form on this page for use of members.
You will be required to nominate for the offices of:

President	Mr. Moretti retiring available for reelection.
Vice President.	Mr. Thompson retiring available for reelection.
Treasurer	Mrs Lubcke retiring available for reelection.
Secretary	Mr.S.Belgraver resigned
Minute Secretary	New office

Remember to give this matter some thought as the success of your club and its activities depends on the elected office bearers.

Slides for March meeting should be given to Mr Moretti. Approximately 10 slides from each member which should give a good cross section of interests.

ANNUAL SUBSCRIPTIONS are due at Annual Meeting.

Single Member	$ 2.50
Family Membership	$ 3.00
Naturalist only	$ 2.00

Warragul Field Naturalist Club held their Annual Meeting on February 16th.

All office bearers were reelected unchanged.
Members are advised that subscriptions are NOW DUE $3.00

REPORT OF COMMITTEE MEETING HELD February 27th 1973.

Resignation of Secretary. Mr Moretti told the meeting that he had received notice from Mr Belgraver to this effect.

Natural History Medallion Decided to support the nomination of Miss A.Ashby.

Minute Secretary. Decided that this new office be brought in. This should help the general Secretary to keep up to date. Also decided that in future the minutes be kept in book form. Miss Kemp to organise this,

Car Stickers. These will be made from permalon ,which is a form of outside sticker, overprinted with club name. Cost will be 30 cents in future.

Notice of Motion for Annual Meeting. That any business for General Meeting be presented in the form of a motion before any discussion on the subject. Note: Any member is welcome to attend Committee Meetings to discuss any matter.

Government House Garden Party.

An invitation for four members to attend this function on March 21st was received. Names have been sent in.
The garden party will provede an opportunity for His Royal Highness The Prince Philip, Duke of Edinburgh, to meet representatives of organisations concerned with conservation,ecology and the environment.

Supper Roster March 23rd. Mrs Puckey, Mrs. Raven

Next Committee Meeting will be held Tuesday 27th March at the home of Mrs.L. Padfield. 42 Strzelecki Rd. Yallourn.

Contacting Members . Miss Christensen has finalised this list of names. A copy for all should be ready at the March Meeting.

Found at Baw Baw. One white and yellow towelling hat.
Mrs Sterkenburg has this object if anyone has lost it.

Mr. W.Cane from Maffra gives a garden talk on the Gippsland Regional Station 3.GI.on Saturday morning at 8.15am.
Many native plants are mentioned in this program,which should be of interest to naturalists.

Details of contributing clubs are as follows:

LATROBE VALLEY F.N.C.

Honorary Secretary: Mr. S.Belgraver
179 LLoyd Street,
Moe. 3825.

Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN

SALE F.N.C.

Honorary Secretary: Mrs. K.Newnham,
P.O.Box 302,
Sale 3850. Tel. Sale 441406

Meetings commence at 8.00pm on the 1st Friday each month at the C.W.A. Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mr. J.A.Wall
156 Kay Street,
Traralgon. 3844. Tel. T'gon 741948

Meetings commence at 8.00pm on the 1st Friday each month at the Grey Street. State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr. J.Brooks
3 Nobel Street,
Warragul, 3820. Tel. W'gul 21563

Meetings commence at 8.00pm on the 3 rd. Friday each month at the Albert St. State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect of Natural History are invited from members of all clubs and should be addressed to:

Honorary Editor (Mrs. L.Padfield)
42 Strzelecki Road,
Yallourn. 3838.

Subscriptions payable to the Honorary Treasurer:
Mrs. E.Lubcke,
122a Helen Street,
Morwell. 3840.

If transport is needed on excursions please contact Mr. H.Crane
Tel. Yallourn622215.

APRIL, 1973

ISSUE No. 112.

Latrobe Valley Naturalist

Protect and enjoy

15c

Registered at the General Post Office Melbourne for transmission by Post as a Periodical Category B.

Traralgon F.N.C.

Meeting :	Friday 4th.May
Speaker:	Mr.I.McDonald 'Wirilda' and its aims.
Excursion:	Wirilda Project.

Latrobe Valley F.N.C.

Business Meeting:	Tuesday 24th April 35 Latrobe RD.Morwell 7.30pm.
General Meeting:	Friday 27th. April
Speaker:	Mr. Alan Morrison "The Gulf Country"
Excursion:	South Cascade Creek area. Leaving Parkers Corner near Erica at 10.00 am sharp.

GOODBYE AND WELCOME.

Mr. Belgraver has retired from the position of Hon Secretary after ten years of service to the club. He took on the work – to the great relief of all members – after a period when we had no permanent secretary for some time. Mrs.Faisst ,our first secretary who did such good work, had had to retire, and after months when the club's records, if kept at all, were in confusion he had a heavy task in getting all into order.

The confusion of records was not something for which we blame our several temporary secretaries. They had abundant good will(otherwise they would not have attempted to fill the gap), but they were simply too busy with other committments to do the work.

With sighs of relief we found that in Mr.Belgraver we had a secretary who knew what to do and did it well.
As our president said when the secretary apologised for his absence through illness from a lecture on The Duties of a Secretary – " It didn't matter. After we heard it we agreed that you do everything in the right way anyway".

Unfortunately that illhealth which has troubled Mr Belgraver since his years as a prisoner of war has become worse.
We regret very much indeed that as a result his work has been too much of a strain for some time, and hope that now without the exacting secretarial duties, he and Mrs. Belgraver will be able to enjoy club outings and at least some meetings, as he has been unable to do lately.

We are very fortunate in that our friend Mrs. Peterson, so much a part of the club for years, has agreed to undertake the work of Hon.Secretary, and Miss Kemp that of Minute Secretary, and so we say to Mr. Belgraver " Goodbye "(as Hon.Secretary – not as a member) "and thankyou".

And to Mrs Peterson and Miss Kemp "Welcome and thankyou also".

VICTORIAN FIELD NATURALISTS CLUBS ASSOCIATION.

At the meeting of Field Naturalist Clubs in Shepparton Saturday 10th March it was agreed that an association be formed. Until this time there had not been a definate association.

The next Convention would be held on Labour Weekend 1974 at Stawell.

Representatives for the South East are Mr.Lyndon
Mr. E.V.Barton
Mrs Lyndon (emergency)

Mrs Lyndon has agreed to act as Secretary until someone can be found to do this work.

Address by Miss Helen Aston February 23rd 1973

" Developing trends in Natural History recording and observing in Australia" was the title of Miss Aston's address. Miss Aston approached the subject from the amateur's viewpoint.

In the early days of Victorian development biological clubs were formed, which went out as groups and individuals to observe an area. Miss Aston read an extract from an 1894 "Victorian Naturalist" relating to a trip to Northern Queensland and showed the lengthy descriptive text then used to record observations. The relative biological information was scattered amongst lengthy descriptions of scenery or what happened to the people. This made an interesting account but resulted in a great deal of reading in order to extract any natural history records.

Today the recording of biological information is often a simple qualitative listing of species. The descriptive articles are separate, thus allowing for information to be readily obtained.

Today Field Naturalists are increasingly concerned with conducting purposeful surveys and with developing survey methods, including methods which result in quantitative assessments. The questioning approach to the purpose of observing and recording has two facets. What is the value of the information gained? How is it used ? Many people today want to know more about the Natural History of our country and are interested in gaining the knowledge.
The use of this knowledge is directed towards conservation and further ecological studies e.g. the basic need to ascertain our biological resources.

In the Victorian Naturalist Oct.1970 Mr Pescott wrote an article " A Biological Survey of Victoria" describing the immediate necessity for such a survey, the method and its uses. A geological survey of Victoria was instigated by the Government in 1852 ; but no comparable biological survey has ever been conducted.

Amateurs will have to play a greater part in these surveys in the future as there are not sufficient qualified personel to do all the field work.
The lack of basic data was evident when the Land Conservation Council started its surveys of given areas in Victoria.

The types of surveys are the study of individual species and the study of an area. The area study would include everything as far as knowledge permits - distribution of all species - plant, animal, birds, etc. and grid mapping on an area basis on the prescence or absence of species.

Keynotes to a survey are firstly planning and designing the survey to fit the purpose and then co-ordinating the efforts of individuals.

Miss Aston then covered surveys that have been carried out or are in progress in various fields of Natural History.
Bird surveys were divided into four categories to show how people can obtain useful information by working either as individuals or as part of a co-ordinated group.

1. Individual people working on a localised area e.g. life history of Pilot Bird and Spurwing Plover.

contd....

Address by Miss Helen Aston contd...

2. Groups of from 4 - 12 really keen people working on the same survey e.g. Life History of the Fairy penguin; the Lyrebird in Sherbrooke Forest; Altona survey (for 10 years on the Silver Gull and another 5 years on all species) Western Port area survey; ecological approach at Yellingbo to the Helmeted Honeyeater.

3. A small central enthusiastic group with a widespread net of individuals who provide additional information e.g. Flame Robin and Wedge-tail Eagle surveys.

4. Really co-ordinated activity for individuals scattered throughout Australia e.g. B.O.C. Swift survey and the R.A.O.U. nest record cards.

Miss Aston then described the Grid Mapping of plant distribution within Victoria, showing maps and explaining how the State was divided into 24 grids according to longitude and Latidude and then each large grid divided into 54 small grids. Each small grid is bounded by 10 minutes of latidude and longitude. When surveys are completed and regularly checked ,the maps can then show clearly any change of distribution and enable professionals to pick up danger points where species are receding and scientists can then investigate the reason for the danger. Much of the information for the grid mapping will have to come from skilled amateurs. Dr. Smith's survey of Non-marine Mollusca is being carried out on the grid pattern. Frog surveys are also being recorded on the grid system. In " Victorian Naturalist " November 1971 January 1972 there are accounts of how mammal survey teams are working and recording in a quantitative manner. Hopefully these surveys will enable the extraction of information on which area should be best set aside to preserve a specific mammal.
The detail included allows for the analytical approach and gives the ecological information needed.

Miss Aston concluded by saying that the trend amongst members of most Natural History Clubs today is to observe and record with a definate purpose in mind. Amateurs have an important part to play in helping to collect information needed for understanding the distribution and requirements of plant and animal species.

Bon Thompson.

BUTTERFLY NOTE

On Sunday 4th March I was fortunate to catch two perfect specimens of the Papilio anactus, the Dingy Swallow tail butterfly.
According to Australian Butterflies by Common ,Page 40 it ranges from Cairns to Victoria and South Australia.
Larva with short spines, blackish with orange spots. Feeds on citrus.
The butterfly itself is beautifully patterned in black and white with about five orange spots on the tail.
I caught it feeding on the buddlia.

Nancy Brooks.

THE CLASSIFICATION OF ROCKS.

Whether we are bushwalking or just strolling down our well paved street, driving through the countryside or in the heart of a city, we are faced frequently by a large variety of rocks about us. Many of us pick up a sample here and there, even keep them in an ever growing collection, yet so often must admit to being unable to identify them or describe their formation.
It is hoped that this article will provide a means of filling such gaps for the observer or collector.

Basically all rocks fall into two major groups:.

1. IGNEOUS - that is rocks formed from molten material,
2. FRAGMENTARY - a very large group, formed in a large variety of ways, from pre existing rocks.

IGNEOUS ROCKS

These are subdivided firstly into three groups according to how the molten material (magma) cooled.

If the magma pushed up into the earth's crust but did not break through to the surface, the overlying rock layers act like a blanket, causing the magma to cool slowly. This allows the formation of large crystals as seen in granite. Such rock is called PLUTONIC (after Pluto, the God of the underworld!)

If the magma pushed out along cracks in the overlying rock to form thin (but again insulated) sheets, the hot mass would cool more quickly with the formation of many very small crystals, but cooling would still be slow enough for some large crystals also to form.
This mixture of large and small crystals is typical of porphyries.
Such rocks are called HYPERBYSSAL.

If the magma pushed through to the surface, a volcano would be formed and the hot material, now called LAVA, cools rapidly allowing only very small crystals to form, as in Basalt. Such rocks are called VOLCANIC .

The igneous rocks are then further subdivided according to the minerals contained in the rock.

The igneous rocks are made up of varying amounts of quartz, felspars and dark-coloured complex silicates. A rock with a large content of quartz is said to be ACIDIC ; the less quartz contained. the more BASIC (or less acidic) it is An acidic rock is usually light coloured because the large content of quatrz allows only a small content of dark silicates.
Conversely basic rocks are generally dark coloured.

The felspars are also a complex set of silicates, but fall into two types:

a) ORTHOCLASE, a potassium silicate with a monoclinic crystal, and
b) PLAGIOCLASE, a series of calcium and sodium silicates with triclinic crystals.

Igneous rocks are divided then according to whether they are ACIDIC or BASIC and also whether they contain more ORTHOCLASE than PLAGIOCLASE or vice, versa. Thus for example, granite is an acid rock, with more orthoclase than plagioclase. Granodiorite however, although similar to granite in other respects, has more plagioclase than orthoclase.

contd...pp 5

THE CLASSIFICATION OF ROCKS contd..

These subdivisions are summarized in Table 1. below together with a list of rocks which fall into each category. Although some of the differences between these rocks can only be detected with difficulty(eg. through microscopic examination of the minerals contained) the table does provide a useful classification system. The system works as follows:-

Rock Specimen1.	Observations	Inference
	Light coloured, quartz visible large crystals.	∴ 'acid' rock ∴ plutonic

∴ even without determining which felspar is more abundant it can be concluded rock specimen 1. is possibly granite or granodiorite.

or Rock Specimen2.	Observations	Inference
	dark colour, no quartz visible fine texture,no large crystals.	basic volcanic

In this case the rock is probably basalt.

The use of this table then at least allows one to caterorize a rock sample into a small and confined group. A study of a geological map of the collection area will then often indicate which rock from the group is the most likely.

FRAGMENTARY ROCKS.

Most rocks of this highly varied group fall into two major categories: first the well known SEDIMENTARY rocks, and secondly the CHANGED rocks (commonly called metamorhpic rocks)

1. SEDIMENTARY ROCKS.

These are subdivided into groups on the basis of the size or source of their particles, and their method of formation. Thus we find names such as

a) ARENACEOUS - that is, formed from coarse particles like pebbles, gravel or sand.

b) ARGILLACEOUS - that is, formed from fine particles like clay, mud or silt.

c) ORGANIC - formed from the remains of living organisms. Such rocks can be CARBONACEOUS, or rich in carbon, like peat, coal, oil etc. or, CALCAREOUS, that is, rich in Calcium, like linestines made up of shells.

d) CHEMICALLY DEPOSITED : such sedimentary rocks can be
Siliceous, rich in silica (flint, chirt)
Calcareous, rich in calcium (linestones)
Ferruginous, rich in iron (ironstones)

2.CHANGED ROCKS

These are subdivided into two major groups:.

a) METAMORPHIC (meaning 'changed form'): these are the rocks changed by the influence of heat and or pressure. This can occur on a local scale producing CONTACT METAMORPHISM, such as in rocks surrounding a magna mass, or under a lava flow, or on a very large scale producing REGIONAL METAMOR - PHISM, as when massive pressures and heat develop in a large stress area.

Mr.R.Hallett

This article will be concluded in the May issue of L.V.Naturalist The tables referred to will also be publ ished then. Ed.

EXCURSION TO POINT TOWNSEND. 24th March 1973.

First stop for the excursion of 22 people was just out of Foster where Mr Austin and 2 Warragul Club members were met. The star for the day was the 15 to 18 month old Koala Mr. Austin and family are caring for.
Mr. Austin led the excursion onto a private property where the owners are taking part in the Cape Barren Geese project conducted by the Fisheries and Wildlife Department. The Geese breed on the offshore islands – Glennie and Anser.
The young birds come ashore first, followed later by the older birds after they have moulted. The Geese have been coming ashore near Foster for about10 years. At first there were only a few pairs; but 3 or 4 years ago a flock selected one paddock of 30 to 40 acres of regrowth after haymaking destroyed the feed and water needed by the farmer for his lambs.
The Department of Fisheries & Wildlife were approached and in an endeavour to split the flock, three pens with a pair of pinion birds in each were constructed on different farms. It is hoped that these birds would breed. The young birds were allowed to join the wild flock in the hope that they would bring some of the wild birds to the different farms. The pinion birds had bred and two young birds were reported to be loose on the farm. The pinion birds were quiet but did not appreciate so many visitors.

Mr. Moretti thanked Mr Austin for leading us and supplying all the information.

Next stop was a private garden at Yanakie to show how native vegetation of an area can be successfully replanted after clearing to prov de windbreaks and shelter.

Lunch was at Point Townsend at the end of Foley's Road. After lunch members walked, scrambled and paddled along the coastline and a census of plants and birds was compiled for the use of the Caravan Park Attendants – a couple from Bendigo who live at the Park during the summer months.
Fifteen species of birds were identifiedans approx.70 plant species.
The return along the beach was more difficult as the tide had come in quite some distance. Many sea urchin"shells" were collected and a number of species of marine molluscs. It is also felt that some local gardens will benefit from the visit.

Mr Moretti expressed everybody's feelings when he thanked Mr. and Mrs. Lyndon for another successful excursion to South Gippsland.

Bon.Thompson.

Specimen Table March 23rd.1973.

Cyathoes juniperina from Yanakie
Casuarina pusilla (She-Oak) flowers, Euc.alpina (Grampians Gum)
Grevillea barclayana (park grown)
A species of Lepiota?. These are usually considered edible! this one could be L.varcina or L.excoriata.
Note. The editor can vouch for the edibility of L:rhacodes only, these are a most delicious fungi to eat, much nicer than the Mushroom.
Slime Mould Diactea spores with microscope to view the spores more closely. The question asked was ' Is it an animal or a plant'.

THE BOAT TRIP TO REFUGE COVE.

Saturday March 17th was a beautiful day and twentyfour members and friends assembled at Welshpool at 7.00am. We had all left our various homes at early hours from 5.00am onwards. Driving through the hill at such a time was very pleasant, as we could see the beautiful sunrise and the light on the trees. Many agreed that we should see these things more often.

On arrival at Welshpool the business of breakfast for some, cups of tea etc for others and general preparation for the trip wenton.
Soon we were all aboard the boat owned by Mr. Roberts so we were in his capable hands from then. There was some uncertainty as to the exact destination for the day as the weather forecasts were not favourable. But we would wait and see. As we went along the shipping lane and into open water , the boat continued southwards much to our delight as we were heading for Refuge Cove.

The water was calm and a beautiful blue colour. We endeavoured to pick out the landmarks as we travelled along. Mr. Brewster had a map which helped us to know exactly where we were at all times. Mr Sterkenburg had made a smaller map which we consulted at various times.

We saw many water birds but positive identification of all was not possible. There were the Black Swans, Cormorants , various Gulls and Terns.
Shearwaters were rising from the water, and another creature yet to be known was swimming and diving in the water. Perhaps a penguin ? or seal? we could not get a good close look at it.

The boat was making a detour and we wondered why, it was to approach closer to some Dolphins which were diving and playing in the water.
It was lovely to see these graceful creatures at such close range. Most people said this was the highlight of the trip.

We continued along the coastline all the time looking at the rocks or the beaches and the coastal vegetation. We could see the remnants of once large BlackwoodForests which had been destroyed by previous bushfires.
The skeletons of these trees always makes us sad , as it takes so long for a forest to grow and so little is needed to destroy it.

There was 3 mile beach , 5 mile beach and Sealers Cove and the next one was REFUGE COVE. We had not noticed the hours slipping by as there was so much to keep our attention. We were landed from the dinghy which had bobbed along behind us all the way. Refuge Cove was a beautiful place with a small beach of golden sand and such blue water. The Granite rocks around the water had been painted with names of ships, and this distressed many of us.
Others found it not so disturbing as the whole area was so beautiful it did no detract from it.

After lunch which we had under the shade of Banksia Trees, there was a general feeling that we should explore the area.
The Beard Heath, Grass Trees, Teatree, Conebush Kunzea were easy to identify. Many other plants were seen. Correa, Baueria, Pink heath were in flower. Various fungi of all colours and sizes were along the tracks as we walked. All too soon we were assembled on the beach ready for the homeward journey. We all agreed that the day was well worth it, and we would have more trips of this kind whenever possible.

Lorna Padfield.

REPORT OF BUSINESS MEETING HELD MARCH 27th 1973.

Petersons Lookout. Notice was received to the effect that the place names committee had published in the Government Gazette the location of the lookout.

Conservation Council of Victoria. Decided that we should retain membership of this organisation . Subscription $10.00 has been paid.

Tasventure Tours. There are vacancies of tours of Cradle Mountain and others in the month of May. Contact Secretary if you wish further information.

Business Meetings. After much discussion at the Annual Meeting it was moved that these meetings should be held on the Tuesday preceding the general meeting. Some people felt that these meetings would be better held in a public room instead of private homes as at present.
From the May business meeting and 3 months afterwards these meetings will be held at the YALLOURN STATE SCHOOL. All members welcome at these meetings. If these meetings are not supported by members the practice of holding them in private homes will become the practice once again.

Car Stickers. After a suggestion that the car stickers could be more conspicuous such as a brighter colour etc. it was decided to leave the style and colour unchanged. There are thousands of these stickers now in circulation. These would all be obsolete if we changed the design or colour.

Telephone Link. All people concerned have now a list of their contacts. There has been a try out which was successful. The message at the end was actually the same as when it started.

Letterhead for official correspondence was discussed.
Decided that this was a desirable thing for the club. Quotes to be obtained from printers.

Supper Hostess . Is there anybody prepared to look after the tea, sugar, milk and biscuits for the supper at the general meetings. If so please contact the Secretary.

Program Change.	May 25th.	Practical night using key on ferns.
	May 26th.	Excursion to Fern areas.
	July 27th.	Mr J.Harrison"Petrology " Rocks used in road making.
	July 28th.	Excursion to Yallourn North Quarries.

Supper Roster April 27th. Mrs.Wall Mrs. Padfield

Next Business Meeting will be held on Tuesday 24th April at the home of Mr. and Mrs McElroy 35 Latrobe Road Morwell.

SUBSCRIPTIONS SUBSCRIPTIONS SUBSCRIPTIONS SUBSCRIPTIONS

Subscriptions are NOW DUE and payable to the Treasurer.
Single Member $ 2.50
Family Member $ 3.00
Naturalist $ 2.00

Your attention to this matter would be appreciated.

PRESIDENT'S REPORT.

We have had another very successful year, excursions have been well attended Two boat trips, a camp in at Mt Baw Baw and a very energetic excursion to the Channel Country; we have joined other clubs on excursions to Billy Goat bend, Moonlight Creek and a film night at Traralgon.

Our meetings have averaged thirty members and as many as ten visitors.

The members have spent considerable time in assessing the crown lands at Rosedale for the Land Conservation Council . This work has been well received by interested parties who have supported us with their many submissions to the Council.

Early in the year a cairn was erected in memory of Jim Peterson. I would like to especially thank Mr. Keith Lambert for the organisation and work he put into this project.

The loyal support of office bearers and members has been responsible for a successful year. Special thanks must go to those devoted members who are responsible for the continuing production and distribution of the Naturalist.

We regret that after ten years in office our Secretary's health will not permit him to continue, and I thank him sincerely on behalf of the club for his devoted service over this long period.

T.Moretti.
President L.V.F.N.C.

OFFICE BEARERS ELECTED AT ANNUAL MEETING.

President	Mr.T.Moretti
Vice President	Mr. O.Thompson
Secretary	Mrs.I.Peterson
Treasurer	Mrs J.Lubcke
Minute Secretary	Miss.B.Kemp

LATROBE VALLEY FIELD NATURALISTS CLUB BALANCE SHEET 1972 - 1973.

Summary of Cash Receipts.

Balance as at 1-3-72	$ 64.62
Bank Interest	4.52
Subscriptions * Membership	47.25
Magazine	205.00
Sale of Books	24.49
Donations	6.15
Photoflora	70.30
Baw Baw Ski Lodge Bookings	66.00
Duplicating for Car Stickers	25.00
	$ 513.33

* Subscriptions include payments in advance of $ 28.00

Summary of Payments.

* Subscriptions	$ 30.00
Donations	5.00
Publicity expenses	5.60
Photoflora "	55.75
Treasurers "	3.49
Books	12.00
Baw Baw Ski Lodge Bookings	66.00
Badges	6.72
Naturalist Magazine	146.11
Balance on hand 28-2-73	182.66
	$ 513.33

* Subscriptions include payments in advance of $ 15.00

Audited and found correct by Mr. R.Ebbott Yinnar.

Details of contributing clubs are as follows:

Latrobe Valley F.N.C.

Honorary Secretary: Mrs.I.Peterson
14 Barry Street,
Morwell 3840. Tel.M'll 42129.

General Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN

SALE F.N.C.

Honorary Secretary: Mrs. K.Newnham,
P.O.Box 302,
Sale 3850. Tel.Sale 441406

Meetings commence at 8.00pm. on the 1st Friday each month at the C.W.A.Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mr.J.A.Wall
156 Kay Street,
Traralgon. 3844. Tel. T'gon 741948

Meetings commence at 8.00pm. on the 1st Friday each month at the Grey Street State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr.J.Brooks
3 Nobel Street,
Warragul, 3820. Tel. W'gul 21563

Meetings commence at 8.00pm. on the 3rd Friday each month at the Albert Street State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect of Natural History are invited from members of all clubs and should be addressed to:

Honorary Editor(Mrs.L.Padfield)
42 Strzelecki Road,
Yallourn, 3838.

Subscriptions payable to the Honorary Treasurer:
Mrs.E.Lubcke,
122a Helen Street,
Morwell. 3840.

If transport is needed on excursions please contact Mrs.H.Crane
Tel. Yallourn 622215

MAY, 1973

ISSUE No. 113.

Latrobe Valley Naturalist

Protect and enjoy

15c

Registered at the General Post Office Melbourne for transmission by Post as a Periodical Category B.

COMING EVENTS

Traralgon F.N.C.

Meeting:	Friday 1st June
Speaker:	Miss Jean Galbraith "Tasmanian Wild Flowers"
Excursion:	Glengarry North, Contact Secretary for details.

Warragul F.N.C.

Meeting:	Friday 18th. May At Millers Factory Sutton Street Warragul. Mr. J.Dowling will show his colour Movie Films.
Excursion:	Sunday 20th.May. Contact Secretary for details.

Latrobe Valley F.N.C.

Meeting:	Friday 25th May Practical night using Key to Ferns. Mr. and Mrs, Thompson
Excursion:	Saturday May 26th. Fern areas (Bulga Park)
Meeting Place:	Traralgon High School Leaving at 10.00am sharp.

REVIEW A HANDBOOK TO THE PLANTS OF VICTORIA, James Hamelyn Willis.

Botanists all over Australia and in other countries, but especially in Victoria have waited eagerly for Vol.2 (Dicotyledons) of Mr. Willis's HANDBOOK . Mr Willis was, until last year, Assistant Government Botanist of Victoria. No one else could have written the 2 volumes of this book, scholarly and comprehensive, and the fruit of wide and accurate knowledge of the over 3300 species (including naturalised introductions) of Victorian plants and ferns.

It is not a "popular"book like the beautifully illustrated FLOWERS AND PLANTS OF VICTORIA which deals with just over 500 species , and of which Mr. Willis was co-author, but, for anyone prepared to follow a botanical key with patience and care, the two volumes of this HANDBOOK form the most valuable book yet written dealing with Victorian plants, or likely to be written in this generation. It is a Key – not a fully descriptive Flora. It gives the distinctive characters, easily seen where easi ly seen directions exist, though necessarily microscopic in some cases, of all known Victorian plants, ferns, and fern- allies.

At the same time many illuminating footnotes make it much more than a key This writer finds these notes (following the distribution in many species) a source of endless interest and help.

The second volume was published under two months ago, and already we who use it wonder how we managed without it - even those of us who have the rare Ewart's Flora which, in spite of its weaknesses, was very useful indeed.

It must be recognised that those who are unused to using botanical Keys will find the work difficult to use. At times even experienced botanists may do so, not because of any failing in the book but because of difficulties inherent in the plants themselves.

In one sense it is the result of 30 years of exacting work, but more truly it is a fruit of a lifetime of plant study. We who know something of what the work entailed salute the author who has just completed it, though perhaps he alone knows all the work and sacrifice it has involved. One regrets that his friend the late J.M.Black, whose Flora of South Australia is so much valued by botanists in other states as well as in his own, did not to congratulate the author on this. Such congratulations would be much more appropriate than those of any lesser lights such as the present writer.

Jean Galbraith.

Another Snail

The tiny snails collected by Heather Christensen at Lake Guthridge on our excursion there in February have been identified by the Museum as Isadorella newcombi. This is the first time this species of snail has been collected for our club records.

Bon. Thompson.

BOTANICAL RECORDING ON GRID MAPPING SYSTEM.

Address by Mr. C.Beauglehole 6th. April

Mr. Beauglcholes address dealt with aspects of botanical w rk on the grid napping systen. There was a severe lack of information of distribution of the flora of the State and this information is necessary when considering areas for conservation.

As much of the land of East Gippsland has not yet been allocated for various uses, there is a great opportunity for conservation.

Mr. Beauglehole showed slides which illustrated many maps of East Gippsland. The maps showed the large grids of the grid system and how these are divided into 54 smaller grids. There are 84 minor grids in E.Gippsland. Each complete minor grid is 100 square miles but some near the border are incomplete, being cut by the border.
A few years ago Mr. Willis listed 1,435 native vascular plants in this area, and with the additions over the last 3 to 4 years, the list is now nearer 1600 species. Of these 200 -250 species of plants grow no further west, 200-250 species are of rare distribution in the rest of Victoria; but, are they preserved in reserves or National Parks?

Abundance of species is now included in distribution lists and it is also necessary to indicate if the plants grow on private property or Crown Land

Mr. Beauglehole then dealt with present and proposed National Parks in East Gippsland. The acreage of the National Parks are as follows:-
Glenadale 400 acres, The Lakes 5,238 acres, Lind 2,882 acres, Captain Cook 6,700 acres, Alfred 5,406 acres, Wingan Inlet 4,730 acres, Mallacoota Inlet 11,225 acres making a total of 36, 581 acres against the 4 million acres of East Gippsland. (Sir Henry Bolte promised that 5% of Victoria would finally be preserved to cover all aspects of conservation and 5% of 4million is 200,000)
The proposed extensions to Captain Cook National Park and which will include Captain Cook and Wingan Inlet National Parks would encompass 135,000 acres.
There is also much research needed on the best management of National Parks to enable the public to enjoy them and yet preserve the environment.
Slides then showed maps of the proposed National Parks of the Alpine, which will include the Cobberas and Snowy River areas. Lists of these areas have been compiled in the grid system and Mr. Beauglehole explained how the maps are marked to show the areas covered by the many lists.

Ultimately he hopes to show the distribution of each species of plant in East Gippsland on grid maps - one map to each species. The value of these maps can be easily seen. These maps will have to be kept up to date as native species are spreading by means of stock, vehicles, people, etc. and it is not possible to ever complete the ever changing distribution of the flora.
In the present and proposed National Parks of East Gippsland at least 1300 of the 1590 species could be preserved.

Mr. Beauglehole then showed slides of rare orchids and other flora of his surveys. He told the history of the discovery and identification of Pterostylis aestiva, a Greenhood named early this year, and pointed out the major differences between it and the similar species Pterostylis decurva.

contd...

BOTANICAL RECORDING ON GRID MAPPING SYSTEM. contd..

Pterostylis laxa was believed endemic to N.S.W. but has been located in several areas of East Gippsland. Seven Greenhoods grew in close association, flowering at the same time, at Mt. Hamilton and a few other areas.
Pterostylis coccinea was another Greenhood new to Victoria; but it is of more limited distribution in this State. A Corybas, new to science, flowering early in March has recently been named C.hirsuta. Corybas fordhamii, described by Mr. Rupp, N.S.W.in 1942 was also recorded in 8 different grids although it had not been previously recorded for Victoria. Knowledge of its habitat made these recordings possible.

To illustrate how necessary it is to look in every conceivable position, Mr. Beauglehole showed slides of Pterostylis biseta growing in a shallow hollow on the top of a very large rock near Mitre Rock.

The controversial coastline between Mallacoota and Wingan showed the habitat of Prasophyllum viride which is confined to 2 or 3 square yards in the wet boggy heathland. Two to Three weeks were spent compiling the list of plants in this fantastic area. The open coastal plains carry many orchids, lilies, etc. Behind this is the forest of Eucalyptus sieberi and Euc.gunnifera.
A road through this area would affect the ecology of the wet land.
People already have access to this coastal plain and the rocky escarpments , management of this fragile area will be difficult.

Finally Mr. Beauglehole showed slides of more rare species of plants, fungi and views of Reedy Creek near Wulgulmerang and also of the Snowy River before the flood, explaining how high the flood had reached.
These slides included the Purple Fanflower (Scaevola ramosissima), Purple Coopernookia (Coopernookia barbata), a rare undescribed Vegetable Caterpillar fungi which lives on the larva of the cockchafer beetle, a beautiful bright blue gilled fungi (very rare in the wet heathlands of Mallacoota) and Red Ironbark (which usually grows in dry conditions) growing in a salty habitat near Mallacoota.

Mr. Beauglehole then answered the many questions put to him.

Bon. Thompson.

SPECIMEN TABLE 27th April 1973.

Banksia spinulosa, Correa mannii and a paler form from Holey Hill.
A beautiful branch of the Hoheria (N.Z.Lacebark)
These were supplied by Mrs Lyndon.

A selection of rocks from Northern Australia supplied by Mr. A.Morrison. Spotted Jasper , Banded Jasper, Moss Agate, Opalised Wood, Olivene Crystals, Copper Ore, Ribbon Stone Quartz Crystal. These were polished so we could see the beautiful markings. Some aboriginal artifacts, knives etc were of interest

Specimen of Laportea moroides (Stinging Tree) labelled DO NOT TOUCH.
Mr Morrison explained thereason for this during his talk.
Most people who visit Queensland discover this tree some time during their travels.

THE CLASSIFICATION OF ROCKS contd.

Changed rocks.

b) METASOMATIC (meaning 'changed body) : these are rocks changed by a chemical replacement of one substance by another. Many of the metal ores are formed by this process. This change can be

SILICEOUS	a replacement by silica
FERRUGINOUS	replacement by iron
DOLOMITIC	replacement of Calcium by Magnesium.
PHOSPHATIC	replacement by phosphate

There are two further (and minor) subdivisions of fragmentary rocks.

1. PYROCLASTIC :- 'fire formed' deposits- formed from volcanic products which fall to form beds or layers (eg. ash)
2. CATACLASTIC - ' Catastrophy formed' rocks - or more accurately, fault formed rocks.

Table 2. lists these various subdivisions of fragmentary rocks, together with some of the rocks belongingto the various categories.

TABLE 1. IGNEOUS ROCKS

		Orthoclase Plagioclase	Plagioclase Orthoclase
ACID ROCKS (Light coloured free quartz present)	Plutonic Hyperbyssal Volcanic	Granite Quartz Porphyry Rhyolite, Obsidian, Pumice.	Granodiorite Quartz Porphyrite Dacite
INTERMEDIATE Some free Quartz present	Plutonic Hyperbyssal Volcanic	Syenite Felspar Porphyry Trachyte	Diorite Felspar Porphyrite Andesite
BASIC ROCKS (dark coloured no free quartz visible)	Plutonic Hyperbyssal Volcanic		Gabbro Diabase(Dolerite) Basalt
ULTRA BASIC (very dark in colour; no free quartz detectable)	Pluto nic Hyperbyssal Volcanic		Peridotite Monchiquite Limburgite

CLASSIFICATION OF ROCKS

Table 2. FRAGMENTARY ROCKS

CLASS	ROCKS	CLASS	ROCKS
1. SEDIMENTARY		2. CHANGED	
a) Arenaceous	Screes, shingle, Gravel, Sand. Breccia, conglomerate Gritstone, Sandstone	a) Metasomatic	
		1) Siliceous	Flint, Chert
		2) Ferruginous	Ironstone
		3) Dolomiteic	Dolomite
b) Argillaceous	Silt, Mud, Clay. Mudstone, Shale Siltstone	4) Phosphatic	Rock phosphate
		b) Metamorphic	
c) Organic		1) Contact	Quartzite, Hornfels Slate Marble
1) Carbonaceous	Peat, Lignite, Coal, Oil Oil Shale.	2) Regional	Slate, Phyllite Schist Gneiss
2) Calcareous	Limestone		
d) Chemically Deposited		3) Pyroclastic	Volcanic Bombs, Scoria, Tuff, Ash.
1) Siliceous	Sinter, Flint, Chert,	4) Cataclastic	Fault formed Rocks
2) Calcareous	Stalagtites, Stalagmites. Travertine		
3) Ferruginous	Bog Iron Ore, Buckshot, Gravel		

Thankyou Mr. R.Hallett for the preparation of these tables. Ed.

The next Business Meeting of L.V.F.N.C. will be held on Tuesday May 22nd at the Yallourn State School commencing at 7.30pm.
All members welcome to attend these meetings.

Supper Roster for General Meeting May 25th.

Mrs Branson . Mrs. Sterkenburg.

A TRIP TO REMEMBER.

Impressions of excursion held 28th April 1973 to South Cascade Creek.

To the mountains they went
the leader in front
the marshall at the end

The sun through the trees
and the buzz of the bees
the gums and the beeches
and the ferns with the leeches

The beautiful rockpools
the mushrooms and toadstools
some brown some white
and others that shine in the night

Some were as blue as the sky
and others like the sauce on your pie
the water splashes wild over the rocks
and when you're not careful
you soon have wet socks

A not so young maid
fell in the cascade
strong hands pulled her out
what a shock! (for the trout)

Lunch near the river
some just have a pie
and the smoke of the sausage
curls up in the sky

The whistle blows
and everyone goes
we see bushes with berries
as red as ripe cherries

Afternoon tea consists of hot coffee
with biscuits and cake
and who wants it some toffee

The day was perfect
the trip just fine
but home sweet home
with the clothes on the line.

Bart Sterkenburg.

MR. POSSUM.

Towards the end of April 72. I was staying with Miss Rossiter near Wangaratta. While drinking a cup of tea before going to bed we heard a sudden noise outside. I looked at Nancy and was happy for her sake, that she was not alone. We took the torch and bravely opened the door to see who was the trouble maker. And there he was – "Mr. Possum" (ringtail), sitting on the water tank. After having a good look at him, we went to bed and slept peacefully.

In June, Nancy and I went to visit a friend in Macrae. After a lovely weekend we returned home and saw that Mr. Possum had been somewhere in the ceiling. We checked the kitchen thoroughly but could not find him, so decided to wait until he came out at night, but there was no sign of him.

Next morning I went out to rake the sand on Nancy's drive. Her cousin, Mr. Nasan was bringing it. Suddenly I noticed two beautiful big wedgetail eagles gliding round and round the house. I wondered what they were looking for There were no sheep on the paddocks nor any fowls near. Mr. Nasan stopped the tractor and looked for a while, then went back for more sand, but my curiosity was aroused. Not letting the birds out of sight I followed their movements. One of them landed in a tree, but the other continued gliding round. Then the eagle in the tree flew up and landed in another tree, caught somethingbrownish in his claws and away they went. On the road Mr. Nasan was watching them also, and Nancy came out saying that she heard shreiking. Mr. Nasna was sure it was "Mr. Possum" in the wedgetail Eagles claws.

K.Jakobson. Mt. Beauty.

THAT FERN AGAIN.

To Warragul Club went the honor, and the thrill, in August 1972, of rediscovering the Filmy Maidenhair in Victoria, a fern "lost" since its first recording wayback in 1880. And this, the second record, was made in what we consider as OUR territory. We certainly must be slipping. But cheer up. All is not lost.

I am elated (and at the same time disgusted, if you know what I mean) to announce that Adiantum diaphanum has been located in the Korumburra area, 2/4/73, at the foot of a dripping rock face in a partly cleared cow paddock among nettles and weeds. Its nearest neighbours are Sickle Ferns, species that can stand pretty dry conditions.

I have lived hereabouts for over twenty years and this rarest of ferns has been more or less under my nose all that time. This is the third record. Will it, like Leadbeaters Possum, be seen more often now we know where to look for it ? Will everyone please take another look at any oozing, dripping, shaded rocky outcrops they know of ?.

E.Lyndon

REPORT OF BUSINESS MEETING HELD APRIL 24th 1973.

The meeting was held at the home of Mrs.Peterson due to the indisposition of Mr. and Mrs. McElroy.

Survival Magazine. These magazines were received from the Gould League. Priced at 20cents a copy and may be ordered from the Secretary. Copies available for perusal at April General Meeting.

May General Meeting . Mrs Thompson asked that members bring copies of Key to Ferns or other suitable books to meeting. There will be a smaller key available for members without copies at the meeting.

Letter Heads for Club Correspondence. It was decided to order 1000 letterheads with "Protect and Enjoy" and Duck Emblem in corners.

Wrappers for Naturalist Decided not to have these altered to show new Secretary in print. As only one copy has been returned out of 3000 sent , the cost was not warranted.

Moonlight Creek. At the request of Mr. Brooks the club will write to the Minister for Conservation asking if any progress has been made towards the proposed National Park.

Tuckfield Tea Album. It was brought to the attention of the Committee that the Secretary listed was incorrect . Tuckfields will be advised of our Secretary.

Minutes from Business Meeting. It was decided that these minutes be made available for the members at the General Meeting. The previous months minutes would be ready as it is too much to expect of the Secretary to prepare these in a few days.

Submissions for L.C.C. Decided that wherever possible submissions will be sent Other clubs will be supported in their submissions for other areas than ourown.

Edward Hunter Pool. We had been advised that Moe City Council has made a Bylaw regarding this area. It is good to know that some action has been taken.

Index for Naturalist. As this is ready for printing we would appreciate some idea of the numbers of people wanting a copy of the index.

SUBSCRIPTIONS SUBSCRIPTIONS SUBSCRIPTIONS SUBSCRIPTIONS SUBSCRIPTIONS

Your attention to the Annual Subscription would beappreciated.
Single Member $ 2.50 Family Member $ 3.00

Naturalist $ 2.00

The Treasurer will be pleased to receive your remittance if you have not already attended to this.

Visitor at General Meeting.

We were all pleased to see our friend Mr. George Scanlan at the April Meeting. He has been visiting the Latrobe Valley for a Few days, hopefully we say that these visits should be more frequent. It was nice to see you George.

Details of contributing clubs are as follows:

Latrobe Valley F.N.C.

Honorary Secretary: Mrs.I.Peterson
14 Barry Street,
Morwell 3840. Tel.M'll 42129.

General Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN

SALE F.N.C.

Honorary Secretary: Mrs. K.Newnham,
P.O.Box 302,
Sale 3850. Tel.Sale 441406

Meetings commence at 8.00pm. on the 1st Friday each month at the C.W.A.Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mr.J.A.Wall
156 Kay Street,
Traralgon. 3844. Tel. T'gon 741948

Meetings commence at 8.00pm. on the 1st Friday each month at the Grey Street State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr.J.Brooks
3 Nobel Street,
Warragul, 3820. Tel. W'gul 21563

Meetings commence at 8.00pm. on the 3rd Friday each month at the Albert Street State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of the Latrobe Valley Field Naturalists'Club. Contributions on any aspect of Natural History are invited from members of all clubs and should be addressed to:

Honorary Editor(Mrs.L.Padfield)
42 Strzelecki Road,
Yallourn, 3838.

Subscriptions payable to the Honorary Treasurer:
Mrs.E.Lulcke,
122a Helen Street,
Morwell. 3840.

If transport is needed on excursions please contact Mrs.H.Crane
Tel. Yallourn 622215

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COMING EVENTS

Traralgon F.N.C.

Meeting: Friday 6th July

Speaker: Mr. A.Eddy 'Extermination of Rodents and Effect on Ecology'

Please note change of venue for meetings; now held at, TRARALGON CITY RECEPTION ROOMS

Warragul F.N.C.

Meeting: Friday June 15th

Speaker: Mr. R.Hay 'Native Mammals'

Excursion. June 16th. Contact Secretary for details.

Latrobe Valley F.N.C.

Meeting: Friday June 22nd

Speaker: Mr. .Leslie 'Natural History Films'

Excursion: Saturday June 23rd. Darlimurla

Leader: Lyndons, Meet at Pump house on Mirboo North(Mountain Hut) Rd. 10.30am.

Warragul F.N.C. Excursion. June 16th. to area back of Neerim East. Meet at Neerim South at 10.30am.

THE GULF COUNTRY Address by Mr. A.Morrison 27th April 1973.

Mr. Morrison gave a very interesting talk on a trip through Northern Australia from below the Carnarvon Ranges to Cairns, Cooktown,Normanton, almost to Burketown, past Camooweal, around to Roper Bar and down to the Hart Ranges. A very spectacular trip with many interesting features of the country, the flora and other items of Natural History. Mr Morrison brought along specimens of minerals and also a specimen, well protected, of the Stinging Tree which retains the power to sting even in the dead form.

At each stop along the way Mr. Morrison showed slides of the views to give a general idea of the particular area. These were followed by photographs of flowers, insects, snakes, fungi and anything else of interest. Added to these were anecdotes of personal happenings along the way. The flowers chosen were either rare, unusual or spectacular in someway.

The bright coloured fruits of the different Salt Bushes made beautiful slides. These plants often provide excellent stock food. Many of the flowers and fruits in these regions of Australia appear to be bigger than speciesfrom the same families down here. The Exocarpus or Wild Cherry with its large leathery leaves and large edible fruits bore little resemblance to our Wild Cherry except that the"fruit" was the usual swollen stem with the seed at the end. The lovely epiphytic orchids of Queensland were shown depicting the whole raceme and then a close up of just a few flowers to see their beauty and form. Dendrobium discolor has a raceme of 18in. to 2 ft. in length.

Spectacular Hibiscus flowers that became a deep rusty red with maturity grows near Cooktown and the Native Hoya grows on the coast with the salt spray splashing over the flowers. A $2\frac{1}{2}$ in. high subterranean plant, that looked more like a fungus than a flower, had both male and female flowers on the same short stem. The floral emblem of Queensland Dendrobium bigibbum has flowers $1\frac{1}{2}$ in. to 2 in. across. The fruit of the Cycad Palms were clearly visible. Captain Cook's men were reported ill after eating these fruits but the aborigines have learnt to treat them successfully for eating.
The Hop Bush Dodonea physocarpa has very large 1in.to 2in. fruits.

Fungi were photographed including the colourful Stinkhorn.
Butterflies $2\frac{1}{2}$in to 3in.across had been patiently photographed with their wings open. The epiphyte Myremecodia was shown with its close association with ants. Mr. Morrison has shown the cross section to illustrate the tunnels in the flower.

A piece of a small fragile 6in. high termite nest had been broken away to show the galleries there. The complete life history of the Caper White Butterfly on a Capparis tree was shown on one slide.

Much of historical interest was seen on the trip. There was the Grassy Hill from which Captain Cook surveyed the area where Cooktpwn mow stands with the surrounding mountainous countryside. Towards Burketown was the most northerly camping site of Burke &Wills from where they walked to the gulf. This site is marked by a carving of the date 1860 on a tree; but the blaze is being covered by the growth of the tree. In the case of bushfire destroying the tree the authorities have erected a cast iron post so that the spot will not be lost,

contd...pp2.

THE GULF COUNTRY contd...

The country near the gulf comprised vast areas of treeless plains and high coarse grass.
At Camooweal on the border of Northern Territory and Queensland in the Police Station is the oldest court bench in the whole of Queensland. Here the Morrisons camped beside the lockup and felt very safe.

The old hotel at Barrallola would be of no use today but was once very famous and popular. At the Barrallola general store all manner of items were sold from suits and rifles to drinks on the counter. It is only 17 miles from here to the gulf, 4 wheel drive all the way, to the landing.
All goods for Alice Springs were once shipped from Darwin to the Landing and then off loaded and taken overland. This is the entrance of the McArthur River into the gulf. Bessie's Springs on the McArthur River was a delightful swimming pool with Pandanus Palms on the water edge and a lovely waterfall to feed the pool.

Roper Bar was visited to see the Roper River with its picturesque causeway. This is a tidal river with a tide drop of 4ft. but the bar prevents the boats crossing. Small freshwater crocodiles are present in these parts.

The Cork-bark Tree (a Hakea), geological formations, quartz and wonderful views were shown of the Hart Ranges.

Mr. Morrison explained how the Black Mountains near Cooktown were so named because of the black Lichen that grows on them;but the actual rock was grey granite under the lichen. On these rocks Mr. Morrison had his first encounter with a Stinging Tree.
Because it was a small species and growing amongst the rocks, it was not recognised. Mr. Morrison grasped the plant for support and within seconds his hand had swollen and there was excruciating pain. Within minutes he could'nt close his hand and then the pain went through his whole body.
Ointments etc. had no effect and it was quite sometime before he could grasp the steering wheel enough to drive. Even up to 6 weeks later the pain returned whenever he washed his hands. For sympathy he was told that a horse severely stung will die. C.S.I.R.O. were unable to find an antidote for this poison during the war.

Might I suggest you look up some of these"towns" on a map to appreciate the distance travelled by the Morrisons to obtain this set of slides which gave us such enjoyment.

Bon.Thompson.

PRESS RELEASE NATIONAL PARKS SERVICE

The State Government has bought 12 acres of land overlooking Mason's Falls in the Kinglake National Park.
The land is only a few yards from the falls, a popular scenic and picnic area visited by more than 100,000 persons a year.
This statement made by Mr. Borthwick, Minister for Conservation.

A BOWER BIRD RETURNS

Until this year I have never had a blue Satin Bower-bird (that is a male in mature plumage) amongst those that usually live in the garden from autumn to mid -spring(September or early October).
One arrived here during the last week in March, and as it is obviously one of the green and chestnut ones(females and immature males)that have been here in the past a few notes about it may be interesting.

There were not many here in 1971, but amongst them was one I called " Cock of the roost". It dominated all the others, never allowing them on the bird-table when it was there. My Cock-of-the-roost did not build a bower, but it did make a platform of sticks in a leafy cavern under a thicket of Buddleia globosa and fruit trees overgrown with red vine, and decorated it with a few scraps of blue - mainly broken pieces of plastic and blue flowers. It used to play with them intermittently, always, so far as I could see, alone.

In 1972 there were at least a dozen bower birds in the garden from May until October. Cock-of-the-roost was again in evidence, and could be distinguished from the others by his pearly white- or perhaps greenish white beak, and a narrow ring of blue feathers round each eye. This time he added to his play-platform until it was a complete bower, consisting of two parallel, and fairly thick walls with his platform of a few sticks between them built into a curved floor between the walls. The whole bower was about 18 ins. long 10ins wide (inside walls) and 10ins. high, consisting mainly of twigs broken off the tree fuchsia near the bird table.

It was decorated with various blue articles, pen tops, broken plastic, blue flowers(especially petals of winter iris) a blue drinking straw and so on. These were play things as well as decorations and favourite ones (especially the drinking straw) were likely to be found anywhere about the orchard or garden where he had been playing with them, but were brought back to the bower from time to time.

When the Cootamundra Wattle flowered in July sprays of golden flowers were added to the bower's decorations and renewed when withered. I did not see any other bird with him at the bower but on one occasion he approached one, evidently female, bowing and lifting his wings in display and turning his head from side to side as if to present her with 3 sprays of wattle blosson held in his beak. She looked on interestingly but made no move toward them so he laid them on the ground in front of her and went off to his bower, displaying and chirring alone. This chirring(like a motor that will notspark) and notes rather like soft rosella calls, were the only sounds I heard.

When he returned at the end of March 1973 he was very dignified and resplendent, wholly dark blue (appearing black in shadow but gleaming purple-blue in sunshine) with a pearly green beak and pale legs and feet.
His feathers were so smooth that "satin" was the only description for them, that is unless the one green bird (presumably another male) which had arrived some weeks before him appeared. Then every feather was lifted so that he looked ruffled and angry as he darted at the intruder.

contd...

A BOWER BIRD RETURNS contd..

I was sure he was Cock-of-the-roost for he became unhesitatingly to the bird table and bower. He began refurbishing the bower, replacing its blue decorations and adding sticks to the walls, displaying and chirring or playing with his sticks and decorations intermittently all day. At this time a third bower bird, also green and bronze, and rather plump, returned to the garden and the three were often at the bird-table but never more than one at a time. The smaller bird - the first to come - was always chased off angrily, but I did not ever see the plump one chased, and yesterday (April 11th.) while photographing Cock-of-the-roost at his bower Mrs. Johnstone saw her (one must assume it is "her") looking on interestedly as he displayed before her.
Whether more birds will come later, and what will happen then it will be interesting to see. Usually all have returned by June when the Pittosporum berries ripen.

Jean Galbraith.

SNIPITS FROM EXCURSION TO SOUTH CASCADE 28/4/73

Members will remember the two young eucalypt trees at North Cascade that resulted in some discussion. Mr. Auchterlonie reports that the tree with large blue-green opposite stalkless leaves and square branchlets was a young Shining Gum (Euc. nitens) . While the brighter green shining leaves (quite long and oblique at the stem end) and round branchlets were the intermediate form of the Mountain Ash (Euc. regnans).

Did anybody else see Lyrebirds on the journey home ? We saw one female at South Cascade and another a few miles further down the road.

The filmy Ferns, of which specimens were collected, keyed out to be three different species. Common Filmy Fern (Hymenophyllum cupressiforme) with toothed segments - Shiny Filmy-fern (Mecodium flabellatum)with entire segments and without wings on the stipe. -Austral Filmy-fern (Mecodium australe)with entire segments and wings almost to the base of the stipe.

The big glossy black snail, with the lovely vermillion colouring underneath, that Mr. Auchterlonie found has been identified as Victophanta atramentaria . This snail is strictly carnivorous. It is suggested that composing flesh and tiny worms could be its diet and it has been known to eat other snails.
Miss Plant reports that an article will be published soon in the Victorian Naturalist on the distribution of this and other species of snails to give people an idea of how far the maps have progressed at this stage.
The specimen Mr. Morrison collected on the excursion was Strangesta ruga , also carnivorous. The light stripe down its"back" is characteristic of typical Strangestas.
As both these snails were carnivorous it is just as well they had plenty of room in the plastic bag. Probably the Strangesta was too big for the Black Snail. It just shows I will have to keep specimens separate even in the field.

Bon. Thompson.

...

THEN AND NOW — A CONTRAST.

" Whoever could make two ears of corn, or two blades of grass to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country than the whole race of politicians put together"

—Jonathan Swift.

This story concerns a situation which makes Mr. Swift's hypothetical achievement pale into insignificance, for it deals with the actual making of many thousands of blades of grass to grow where none whatsoever grew before, and I may say at the outset that I am far from convinced that the achievement merits either acclaim or praise.

The scene is two small creeks which flow for about a mile through our property at Narracan. Their waters ultimately join, and flow into the Latrobe via Wilderness Creek and Morwell River.

Fifty years ago these streams were clear and briskly flowing, a few inches deep, and one or two feet wide, with a few larger pools. In this chocolate volcanic soil, there is neither sand nor rock, and the verges for several feet were inclined to be soft, water-logged, and in places boggy.

By far the most interesting feature of these streams was the wealth and variety of vegetation on their banks. Musk, Hazel, Christmas Bush 20 ft.high, Prickly Currant, Pittosporum,Hemp Bush and Lonatia grew there.
There were tall Blackwoods and Swamp Gums, Tree-ferns, several Blechnums, and tangles of Umbrella Ferns. Near where a hut had existed last century were two willows. At one spot a colony of Bulrushes(Typha angustifolia)occupied an area about two chains across, and there were two similar patches of the common Reed (Phragmites communis). Rushes were in great variety, comprising Cyperus, Carex, Gahnia, and some half dozen species of Juncus. This list is incomplete; many more could be named.

Introduced Blackberries sprang from seeds dropped by birds and flourished exceedingly. Rooted in water they would not burn unless cut first, and hormone weedkillers were then unknown. The law said they must be destroyed, and we concurred; but could only cut and burn. This was disastrous to the adjacent vegetation, and the blackberries grew up stronger than ever next year.

About this time a firm of Melbourne seedsmen began advertising a wonderful new swamp grass called " Poa aquatica ", which, they claimed, would "Kill out rushes, weeds and blackberries, and transform useless swampy ground into a valuable asset ". Ahem ! Jonathan Swift's credo came to mind.

In due course, the annual task of blackberry cutting came round again, a laborious and futile operation involving a weeks work for the two men in the heat of late summer, with the march flies and snakes for company.
The "Poa aquatica" advertisements continued.

As I knew nothing of this grass , the only way to check on the claims made for it, seemed to be to try it out on a small scale, though I hardly expected it to achieve the miracles claimed for it.

contd....

THEN AND NOW A CONTRAST contd..

Accordingly a half bag of roots was obtained. These were pressed into the mud with the heel as instructed, at spots a chain or so apart. Growth was prompt and vigorous. Very soon each planting site was marked by a patch of grass 3 to 5 ft. high, and several yards across. Visitors came to see it, were favorably impressed, and took away roots. The next stage was the linking-up of the patches, and the struggle for complete possession of the creek was really on. I had underestimated the capabilities of the grass. Claims made for it were all too well founded and it soon had the upper hand of all the creekside vegetation.

Grazing cattle were partly responsible for this. Cattle are most wasteful and fastidious feeders. No matter how luscious, nutritious and palatable the grass at a given point may be, they will, at first, eat only a portion of it, then walk on, looking for something better. On firm dry land, this does not matter greatly, as most of the fodder is eventually eaten. But in the case of the Poa aquatica, only approximately a quarter to a half of the growth is eaten, the balance being trodden under the mud, where, of course, it is irretrievable. Much, and eventually all, of the minor vegetation, such as ferns, rushes etc. gets trampled under the mud with it.

Poa aquatica makes quick regrowth. It was one to two feet high before anything else was above ground. A few repetitions left it in sole possession. Even the large patch of Bulrushes ultimately succumbed. The common reeds held out a little longer, but before long they survived only in a small area inaccessible to stock.

Soon the trampled vegetation accumulated as a layer of spongy, fibrous, peaty material just under the surface, deepening each year, and now several feet thick, raising the surface water level by a like amount, and spreading it outwards accordingly. Attempts to cut a drain were unsuccessful, as the sides of the drain simply slumped together, and the grass again took over.

An amazing and disturbing result of this is that Poa aquatica has destroyed every tree and shrub along the creek as thoroughly as any bulldozer could do. Most of these trees were growing just above the original water level. They were of varying sizes up to two feet in diameter, and 100 ft. high. The rising water submerged their roots and the lower trunks so their death was inevitable. Some Eicalypts and other species tolerate, and even need temporary flooding, but only trees with specially adapted root systems can stand permanent submersion. In the latter category are the two willow trees, one a Weeping Willow (Salix babylonica) , and the other a Goat (or "Pussy") Willow, (S.caprea) which are now the only surviving trees along the creek. Allothers have been drowned. The dead skeletons of some of the larger ones still stand, but most rotted off at or just above water level, fell into the mire, and were soon engulfed in the rising green tide, leaving no trace of them.

In 1910, two stoving contractors pitched their tent in a little grove of Swamp Gums by the stream side. Here, they lived high and dry all through the winter. Now, their tent site is several feet beneath a quaking morass of Poa aquatica, and of the Swamp Gums, no trace remains. All logs once used as crossings are now submerged and unusable.

contd...

THEN AND NOW A CONTRAST contd..

I have used the name "Poa aquatica", under which the grass was distributed. This name was changed first to Glyceria aquatica, then to Glyceria maxima the name now accepted by botanists although neither this, nor its common name of Reed Sweet Grass, has yet caught on, it remainsPoa aquatica except among botanists. It is an introduced grass, native of Europe. It is frost tender, and quite dormant all winter. In late spring it makes rapid growth to 6ft, topped by a sterile panicle. Spread is entirely by strong rhizomes, which confine themselves to shallow water, and swampy areas which are wet all the year round.

Cattle pay little attention to it until the pastures dry off in summer then they take to it in earnest. Occasional animals become bogged in the swamp and disturbance of the rolling vegetation fouls the water so they will not drinkit, and othe rarrangements have to be made for watering stock.

Our experience with "Poa aquatica" is not unique.
The grass has been introduced along many of the small streams of the Narracan Thorpdale region with similar results.

I wonder if Jonathan Swift would have approved ?

R.Auchterlonie.

REPORT OF MEETING L.V.F.N.C. 25.5.73.

Mrs Thompson introduced the subject "Ferns" by talking about the parts of fern plants and how they differ from flowering plants.
The reproductive system differs from flowering plants also.
Large diagrams showed clearly the parts of these plants. A Key to the species of Ferns brought to the meeting had been devised by Mrs Thompson.
Other Keys could also be usedto identify these ferns.

Mr. Thompson showed slides illustrating the many species of ferns and how they differ from each other. We could see the detail of the patterns of the Sori (the seeds of ferns), as these slides had been taken through a microscope. The greater magnification was appreciated by the members who knew little about these plants.

At the conclusion of the slides members were able to show their prowess in identifying some of the ferns on the table.
Microscopes, magnifying glasses and their own eyes enabled some of us to successfully identify some of the species.

Although this was a practical working night all agreed it was well woth while as we need to be able to know what we are looking at in the field.

On behalf of the members, Mr. Moretti thanked both Mr.and Mrs. Thompson for their efforts in giving us a most interesting and instructive evening.

L.Padfield.

REPORT OF COMMITTEE MEETING L.V.F.N.C. 22.5.73

Survival Magazine. A good response from members to receive this publication.

June Meeting. advice from Mr. Leslie confirming arrangements for meeting.

Victorian Naturalist. Mrs Lyndon has sent advice of L.V.F.N.C.activities to this magazine. Thought it a good idea to put ourselves in front of other clubs with notice of our activities.

Campout 1974. This will be over the Australia Day weekend in January.
Bogong High Plains is the area chosen, Bairnsdale F.N.C.to arrange the trip.
Decided that we contact Mr. Rogers regarding details.
More about this event later, but thought members may like to think about whether they could attend or not.

Nelson Books. Circular received from this organisation about a Book Club for Conservationists. These books would be concerned with Natural History and other related subjects.

June Excursion to Darlimurla with the Lyndons as leaders.
Fungi to be the main interest but no doubt we will find many other things to interest us.

Supper Roster June 22nd. Mrs Thompson , Miss Kemp.

Next Business Meeting will be held at Yallourn State School on Tuesday June 19th. at 7.30pm. All members welcome at these meetings.

Subscriptions. If you have received a Final Reminder notice in this issue it is because your subscription is overdue.
Rates. Single Member $2.50 Family Member $3.00
Naturalist only $2.00

Articles for Naturalist.

The Editor has some copy in hand , but is always ready to accept any article of interest from Membersfor publication.
Remember these do not have to be of a very extensive nature.
Something to fill say 10 - 20 lines is quite acceptable, perhaps some little observation on a trip to the bush.

Details of contributing clubs are as follows:

Latrobe Valley F.N.C.

Honorary Secretary: Mrs.I.Peterson
14 Barry Street,
Morwell 3840. Tel.M'll 42129.

General Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN

SALE F.N.C.

Honorary Secretary: Mrs. K.Newnham,
P.O.Box 302,
Sale 3850. Tel.Sale 441406

Meetings commence at 8.00pm. on the 1st Friday each month at the C.W.A.Rooms, Macarthur Street, SALE.

TRARALGON F.N.C.

Honorary Secretary: Mr.J.A.Wall
156 Kay Street,
Traralgon. 3844. Tel. T'gon 741948

Meetings commence at 8.00pm. on the 1st Friday each month at the Grey Street State School, TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr.J.Brooks
3 Nobel Street,
Warragul, 3820. Tel. W'gul 21563

Meetings commence at 8.00pm. on the 3rd Friday each month at the Albert Street State School, WARRAGUL.

The LATROBE VALLEY NATURALIST is the official publication of the Latrobe Valley Field Naturalists'Club. Contributions on any aspect of Natural History are invited from members of all clubs and should be addressed to:

Honorary Editor(Mrs.L.Padfield)
42 Strzelecki Road,
Yallourn, 3838.

Subscriptions payable to the Honorary Treasurer:
Mrs.E.Lubcke,
122a Helen Street,
Morwell. 3840.

If transport is needed on excursions please contact Mrs.H.Crane
Tel. Yallourn 622215

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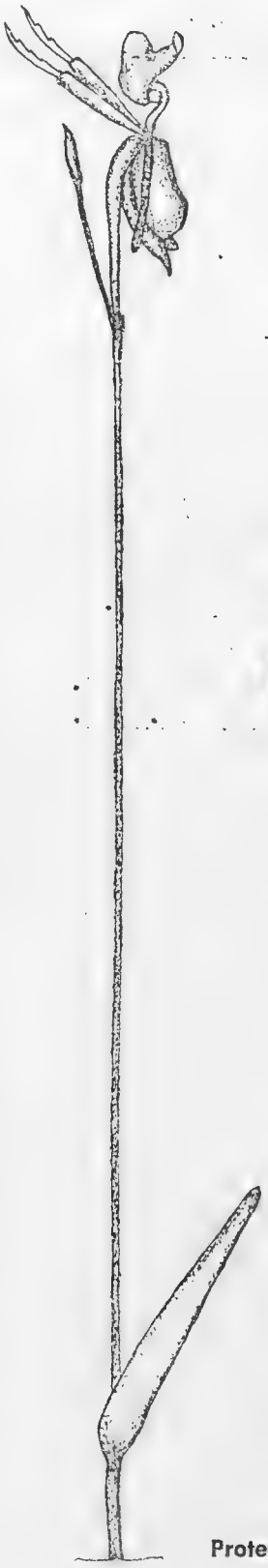

Latrobe Valley Naturalist

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COMING EVENTS.

Warragul F.N.C.

Meeting: Friday July 20th.

Speaker: Mr. Ian (Dick) Morrison F.N.C.V.
"Natures' Walkabout"

Excursion: Contact Secretary for details.

L.V.F.N.C.

Meeting: Friday July 27th will be held at G.I.A.E.(Yallourn Technical College) Monash Road Newborough.

Speaker: Mr. J.Harrison "Petrology" and in particular the Rocks used in road making.

Excursion: Saturday July 28th. Geology excursion to Yallourn North Quarries and adjacent areas.

Meeting Place: Yallourn Primary School Leaving at 10.00am.

Traralgon F.N.C.

Meeting: Friday 19th.August Please note change of date.

Speaker: Mr. G.Rowe "Invertebrates of the seashore"

Excursion: Inverloch and/or Walkerville
Contact Secretary for details.

REPORT OF EXCURSION BULGA PARK 26th May 1973.

Six cars were at the meeting place and at the order of the Marshal we set on our way for the excursion. We were to travel via Gormandale and could see some wonderful showing from the Correa reflexa bushes along the way.

Morning tea was had at the Gormandale Wildflower Reserve, where there was more Correa and some early Sunshine Wattle in flower. The Gnat Orchid (Acianthus exsertus) was flowering. As this area is a good orchid ground some time was spent in looking for more orchids in flower or their leaves. Many Pterostylis leaves were found. The Pink Heath (Epacris impressa) was abundant everywhere we went as also were the Fungi of many species.

A drive through rolling hills with occasional views of the coast took us along the Grand Ridge Road to Bulga Park.
A short walk through the park showed us the ferns we had heard about from Mrs. Thompson on the previous evening.
High on the trunk of a Beech Tree we could see the Weeping Spleenwort (Asplenium flaccidum) hanging in graceful sprays.
As we walked some of us were feeling the Tree-ferns to establish the difference between the Rough and Smooth varieties. This we found was quite unmistakeable especially when it was the Rough Tree-fern. The Slender Tree-fern was also in Bulga Park. On the Tree-fern trunks the Veined Bristle Fern and Filmy Fern were growing along with many mosses and lichens.

The Leeches seemed to like some of the party, but were soon brushed off making us all feel like inspecting our clothes for the little beasts.

Lunch was had in the shelter of the hut and afterwards we slipped along a track to see the Long Fork Fern(Psilotum nudum). After we had all senn this fern it was decided that we go no further along this track as it was not likely it would improve as we went along.

We then drove along to Calder Junction stopping to see some Eucalypts where we could hear the song of a Lyre Bird. He was very close to us, his scratchings were in the small area where we stood to listen to his song.

Rain sent us back to the shelter of the cars and then a drive through beautiful ferny hillsides and stands of Eucalypt Forest to Leroy and Koornalla where we said goodbye to our leaders Mr and Mrs Thompson who had helped us all to enjoy our day.

L.Padfield.

INDEX FOR LATROBE VALLEY NATURALIST from issue NO.1 to issue No.108.

has been completed. It consists of 17 pages using both sides of paper.
Copies of the index may be obtained from the Club at a cost of 20 cents.
Please include postage when required.

As previously stated the index was commenced by Mr George Scanlan and finally completed by Max Thompson, who has agreed to compile the index for 1973 issues.

RECOMMENDATIONS ON ROSEDALE SOUTH.

The proposed recommendations by the Land Conservation Council on the South Gippsland Study Area No.1. has now been published. This report will please conservationists who know the area, especially Holey Plains and Sperm Whale Head.

The L.C.C. has now called for submissions on this report and I feel that we should write and say how pleased we are with all the recommendations it contains, especially mentioning any areas that we, personally, know or are concerned about. Of course if you are not satisfied then you will forward an objection. I feel there will be a number of objections raised and if we do not state our approval the L.C.C. will have nothing to compare with the objections. Because of this I would like to see every member who sent in a submission before to please take the time to send in an approval submission on this recommendation. Numbers will count again and we still have to get the final recommendation adopted by Parliament. So although the first problem is passed we must not stop here if we are to have this area reserved.

For members who have not seen the recommendation it contains the following suggestions : -

HOLEY PLAINS - A large area of 26,700 acres to be retained in its natural condition and permanently reserved for recreation and conservation of flora and fauna. 7,592 acres be allocated to Softwood production(pines) but 4,892 acres of this are already held as plantation area lease by A.P.M. and the remaining 2,700 acres are on the eastern edge of the Holey Plains area.
There are several other reserves retained as examples of the natural bushland and amongst these is the 68 acres near Gormandale where both the Large Duck and the Little Duck Orchids and the lovely Fanflower grow.

STRADBROKE - The main block of Stradbroke has been deferres until the much larger block south of it is considered. But it is to remain in its present state until then. This will perhaps disappoint the Historical Societies but they have not lost it, only have to wait for future consideration. Timber Reserves have been retained in this block and an area at Willung South of 356 acres, recommended as a bushland reserve, is the area where the Tree Orchid and many species of ferns have been recently recorded.

CALIGNEE - In this area it is recommended that 4,300 acres be used for Softwood production by the Forest Commission(much of this is repurchased farmland) and 600 acres to be a Reserved Forest and used for Hardwood production.

TOONGABBIE - This area is to be considered with the adjacent land in the Melbourne Study Area.

GIPPSLAND LAKES BLOCK - It is suggested that the Gippsland Lakes National Parks (5,238 acres) be incorporated in a much larger area of 43,300 acres to be permanently reserved under unified management. The L.C.C. has divided this large block including the Coastal dunes and lakes systems, into 8 zones to emphasise different aspects of conservation. Shooting of wildlife will only be permitted in 3 of these zones.
Fisheries and Wildlife will retain the Lake Coleman and the Heart areas and the Latrobe Valley Water and Severage Board will retain land held by them.

contd....

RECOMMENDATIONS ON ROSEDALE SOUTH contd..

Much thought and consideration of the many submissions received has gone into this detailed report. A copy is in the Club Library.

Section 14 of the Land Act 1958 is repeatedly mentioned and the relevant portion states that the Governor-in-Council may by notice published in the Government Gazette either by general or particular description reserve either temporarily or permanently from sale or from being leased or from having a license granted in respect thereof any Crown Lands which in his opinion are required for any public purposes whatsoever. And then it gives detailsof specific instances.
Section b states that it can also be excempt from occupation for mining purposes under any miner's right if Governor-in-Council gives notice.

The Land Conservation Council recommendation for Softwood Production on Public Land states that at least 10% of the gross area should be retained under natural vegetation in addition to land required for roads and firebreaks and that this factor has been taken into account when allocating gross areas.
In Holey Plains Block there are recommendations that five chain of native vegetation beretained around the large swamps and one chain around minor swamps in areas allocated for Softwood Production.

Bon.Thompson.

MY FIRST "BIRDING"HOLIDAY

I was invited to attend the Bird Observer's Club Easter Camp near Balranald N.S.W. and it became a reality when Joy Johnstone invited me to accompany her. With the car full to overflowing we left on 18th. April in rainy conditions, stopping at Yellingbo for a tea break where the first new bird for me was seen, Helmeted Honeyeater. We lunched at Healesville Sanctuary where new birds were seen, I think to confuse me. It was not until late afternoon that a Black-backed Magpie came to view.

The first night was spent with the Stevensons at Cohuna. They are all well and have settled into their new surroundings.
Next day we continued on our way lunching at Kangaroo Lake, Mystic Park where it was our pleasure to see 3 pairs of Crested Grebes. We spent a short time at the Swan Hill Folk Museum before arriving at the camp site on "Talpee" Station about 5.00pm. All our days were enjoyably spent "birding" . New species for me mounting up, with 11 or more on at least 3 days. Joy's new list not as extensive only 7 for the trip, mine was 59, this number I don't think to be repeated in a fortnight by me again. The weather was good too. Rain followed each time we shifted camp, but didn't interfere with our activities. A bird which seemed to elude us at both camp and Hattah was the Ground Cuckoo-shrike.
We spent some time looking but were either too early or late,(not sure which) so that is one to catch up with. Leaving the B.O.C.camp we travelled via a Spotted Bower-bird area with no luck to Hattah National Park(4 nights) to Wyperfeld.National Park (2 nights) spending the last night at Nhill where we left early next morning for Kiata to visit the Lowan Sanctuary to see " Romeo " (Mallee fowl)

... contd....

MY FIRST " BIRDING " HOLIDAY contd..

He didn't disappoint us. Purple-gaped and Tawny-crowned Honey-eaters were seen as we went to the mound, with Corellas in the wild on the road home being the last of the new ones. Home was reached late in the evening after a most pleasant and rewarding trip.

Heather Christensen

A list enclosed in conjunction with this article showed 53 species new to both travellers, 52 new to Heather, and with other birds seen a total of 130 species.

GUESTS OF THE A.P.M.

A visit of a party of fourty members of the Victorian National Parks Association arranged between them and A.P.M.; to do a tour by bus of forestry work of the Company, took place on May 5th. 1973. We were privileged to represent Warragul F.N.C. and joined the party on the Gippslander at Warragul. Mr Scott, A.P.M.'s Chief Public Relations Officer travelled with the party and we were joined at Moe, the starting point, by three other officers of the Company including one from their research branch and by an officer of the Forests Commission.

We went South of Moe through the 20,000 acre Silver Creek Tree Farm to Golden Gully pine seed orchard at Coalville. Here were seed nurseries consisting of widely spaced pines grafted from carefully selected trees, mainly from other parts of Australia. The trees we saw were of seed bearing age.

A problem explained to us was incompatibility of grafts with the stock, causing stunting and death of the tree. Examples were pointed out. New Zealand was said to be questioning this method of producing seed by grafting because of this trouble. Cones are harvested by climbing the trees. Progeny testing of seed is carried out.

We went on to Ten MileCreek Road and by the school, we saw a comparision between pines planted on land which was pasture and land which had been cleared from bush. Two such plantations adjoined on each sideof a roadway. Research was being done to discover why the pines on the old pasture land grew so much better, particularly growth in the early stage. We walked half a mile through pine forest to Walnut Tree Picnic Spot — a very pleasant place on A.P.M.property which is open to the public during times of low fire risk. Here a plentiful packed lunch with hot soup, tea and coffee was provided.

We continued along Ten Mile Creek Road to Yinnar, making a detour to see E.globulus trees recently planted on extensive easy sloping land, with the intention of trying out mechanised harvesting.

We then came back through Hazelwood and Tyers to Boola Boola Forestry Commission area north of Tyers. On the way we drove past the Maryvale Mill and its operations were discussed with Mr Scott in the bus. A.P.M.has timber cutting and pulpwood contracts with the Commission at Boola Boola and other places. A.P.M.'s operations are directed towards management of the forest for future production of mixed eucalypt

contd....

GUESTS OF THE A.P.M. contd...

For purposes of pulpwood cutting, Commission forests are divided into categories A,B,C,and D. From the Commissions point of view class D, Mature Mixed -species Forest, is the most important, as A.P.M.'s contract requires them to clear out all old over mature trees for pulp, thus freeing the forest for growth ofnew trees. Association members pointed out the value of dead trees asharbourage for wild life. The eventual yield from second growth forest is still something which is unknown and research is being conducted into this.

We next went to the Moondarra Reservoir. Here I ascertained from Mr Scott that there is no trouble from poisonous metallic residues from A.P.M.plant. They have spent and are spending a great deal of money on water treatment and chimney effluent reductions.

We returned to Moe passing some very young pine plantations which showed greatly increased growth of trees on the site of burnt windrows of old timber and trash. Research is being done on this. It is thought to be due to the effect of sterilization from heat and fertilizer effect from the ash. Sample soil sterilized at a carpet factory had shown very similar results to that in the field.

We were left with the impression that the A.P.M. is a very alive concern commercially and scientifically and looking to the future in its forestry. Alive also to the necessity for feeling its way ahead in cultivating eucalypt species, as these species have no long history of cultivation and harvesting. Alive also to the fact that pines are strangers to the bush soil and that all their forestry operations are still young on the land. That they have a good deal to learn as existing cultivated forests of pines and eucalypts mature over the years.

We thanked our hosts and our fellow V.N.P.A.members. The last we saw of the latter was from Warragul station, they being mostly gathered at the refreshment counter on the train and we tea-less on the platform.

Kathleen and John Eve.

ONE WAY TRAFFIC FOR SNAILS

In my garden is a beautiful "golden chain" tree. About eight years ago I planted it near the fence. Last year, and this year it was laden with bunches of bright yellow flowers, however I was wondering why the near side of the tree (east side, nearest the fence) was not flowering as well as the west side. Further investigation showed that the eastside had been damaged by snails. But why not the westside ?.

I found out. The tree splits into two branches, about 10 in. above the ground. An"east" and a "west" branch. During the daytime the snails are hiding in the grass under the tree. In the late afternoon they start travelling upwards along the east branch, which is a colder and sometimes wet side of the tree. As a result the east side of the tree is eaten by the snails! leaving the warmer west side beautiful and undamaged.

It is as simple as that (as long as you know ..)

Bart Sterkenburg

FUNGI FOR BEGINNERS.

For the keen beginner wishing to learn something about the wealth of colorful fungi that springs to life each autumn and winter the inexpensive F.N.C.V. Handbook is still the best reference. Brightly illustrated overseas handbooks appear in this country from time to time, like the crop of fungi they depict. Of these, we find Collins Guide to the Mushrooms and Toadstools is the most useful in the field, covering the widest range of forms and families.

The Naming of fungi is still more or less in a state of flux. As with the higher plants they suffer at the hands of splitters and lumpers, so that old and familiar forms are liable to turn up in new family groupings. However, they are not hard to track down with a little experience. The gilled fungi, the most plentiful of all types, are the most difficult of all, many of the hundreds of " little brown jobs " being superficially alike.

Generally, on a club outing, so many forms are collected that the student suffers from mental indigestion and becomes confused, trying to absorb too much at one time. It is better to begin with just a few, the ones that have some definate character that makes them easier to remember. Once seen and handled, no one could forget the showy red Amanita muscaria, the Fly Agaric, found always under pine trees. The Russula tribe are easy ones, especially the species with scarlet or wine-colored caps and crisp white gills. In fact, the whole mushroom is crisp when fresh and breaks like a biscuit with an audible crackle if broken close to ones ear, Boletus is characterised by pores or tubes in place of gills. Lactarius exudes a white milky juice when broken.

Dont be too fussy about species for a start. Concentrate on remembering the different families. It is a good idea to carry a notebook and jot down a few names and descriptions, with sketches. Most fresh fungi, if carried carefully, will keep for some days if enclosed in a covered vessel, or even covered with a sheet of plastic on a tray. Put a sheet of white or black paper under them, as the case may require, for the spore color is often a great help in identification.

The fungi are not permanent plants in the sense that the flowering plants are. One can always go back to a locality to find a special fern, or orchid, or tree. But the fungi vary with the weather from day to day, from week to week. One may be lucky enough to come on a magnificent display in a certain gully. Go back in a week or a fortnight's time to enjoy it again and there may be nothing to see at all, or the previous crop of species may be replaced by something entirely different. To attempt to list the fungi in a given area would be never-ending, even if one lived right on the job, and was equipped with the necessary specialised knowledge.

E.lyndon.

SIGNS IN NATIONAL PARKS

Recently in National Parks there were erected new timber signs. These have been made from routed timber, stained brown with letters painted yellow.
This colour scheme and basic method of construction are used for national parks throughout the world and in most other States of Australia.

From National Parks Service Press Release.

A SNAILIE STORY

After the first welcome rain in January a new genus of Snail suddenly appeared from amongst the Kidney-weed jungles that border the carport and caravan. They were the prettiest little horn-colored flattened shells and the animals that carried them were a dark inky blue. There was quite a swarm of them.
I turned quite pale. " Heavens," I thought, " here's something that's come in with us from foreign parts past the fruit-fly man."

A tin of salt and water was hastily prepared and all visible shellbacks collected and dropped in before I ran inside to leaf through the Victorian Naturalist for information on Non -Marine Molluscs. December 1971. The introduced Zonitids provided the answer to my question. The writer ? D.C.Long.

There were three species of Oxychilus with a low-spired glossy shell, horn to greyish in color, paler below, where they have a wide central perforation or umbilicus. O.cellarius,found in several places in Central Victoria and in Melbourne. No. That one has the edges of the mantle, viewed through a lens, speckled in brown. That's out. O.alliarius, State wide and the smallest of the three. Emits a smell of garlic when alarmed. Well, either my specimens do not scare easily or they are not alliarius. O.draparnaldi, This seems to fill the bill. Common in and around Melbourne. (But where did we get it from. Perhaps on a potted plant ?) Shell up to 15 mm in diameter with seven whorls. Yes, I'll settle for draparnaldi.

These Zonitids are omnivorous, they are not molluscan pests. They will eat other slugs and snails and are useful in the garden. Oh joy! but Oh boy !
I dropped the book and sped outside and strained the salty water off my snails, swilled them thoroughly in fresh water, tipped them out on the lawn.
With somerelief I watched them stalk off in search of other more pestilential breeds of Helix aspersa,or the common garden snail.

When writing this I suddenly had the bright idea of bottling up a couple of Oxychilus with a small Helix. They seem to be taking more than a usual interest in it. I'll let you know.

E.Lyndon

Specimen Table June22nd.
A lovely spray of Hardenbergia Species. supplied by Mr Sterkenburg.
This had not been affected by the frost as one growing in another members garden had been. I wonder how other members growing Hardenbergia fared during the frosts?

National Parks Service Press release

This reminded us all that Dogs, cats and firearms are not permitted in National Parks. National Parks are sanctuaries for native plants, birds and animals, and people who brought domestic animals into parks would be asked to leave.
Firearms should be surrendered to the Park Ranger for the duration of visit to the Park.

Dr. Smith asked for co-operation in these matters to avoid embarrassment and unpleasantness. Contact Rangers if you have any doubts when you arrive at any National Park.

REPORT OF COMMITTEE MEETING 19th JUNE 1973.

Norman Wakefield Memorial.
A fund has been started to honour this great naturalist. If you wish to send money to this fund contact Secretary for further details.

Hazelwood Arboreteum.
Morwell garden club (formerely Horticultural Society) wishes to have a combined excursion and working bee at the Arboreteum. We have as yet not received official notice about this .

Stradbroke block for L.C.C. Submission. It wasreported that 120 species of plants have been found in this area.

Eucalypt Species for study. A request from Mr Fell regarding specimens of Red Gums has been handed to the people most likely to be able to help.

Banksia Species. Monash University has commissioned Mrs Celia Rosser to paint all of the Banksia species. Help from clubs in collecting specimens and seeds for this project asked for. This is a long term project but very worthwhile.

Photoflora 1974

Request from Native Plant Preservation Society whether we would be interested in arranging a showing of slides in our area. Decided that we would do this. Secretary to find out about suitable hall etc and report later.

National Parks Service. Report for year ended June 1973 received.
This is available to members for perusal if you desire.

Mr.K.Lambert was sent a Get Well card on behalf of the club. He had injured his hand and was out of action for some time.

Proposed Recommendations L.C.C. We were advised that there was a further 60 days for submissions for South Gippsland Study Area No.1. See article Page2.

Library Shelves. The cost of these has been donated by members. The work being done by Mrs Crane who was asked to put in account for costs incurred by her.

Greeting Cards. Decided that the club should order 500 plain white cards with the Duck Orchid emblem in one corner. These cards could be used for general greetings to members and other clubs. Also some may be available to members to buy.

July General Meeting. As stated in Coming Events this meeting will be held at the G.I.A.E.section at the Yallourn Technical College buildings Monash Road. Newborough. Mr J.Harrison will discuss the subject "Petrology".

There will be no supper at this meeting

Notes for July Excursion.

Leaving Yallourn Primary School at 10.am. Visit Roland Quarries and L.V.W.S.B. property .See geological formations at rear of W Station.
Leaders to be Mr and Mrs Williams.

Next Business Meeting will be held Tuesday July 24th at Yallourn State School.

All members invited to attend these meetings to join in discussion.

Latrobe Valley Naturalist.

Details ofcontributing clubs are as follows:

Latrobe Valley F.N.C.

Honorary Secretary: Mrs I.Peterson
14 Barry Street,
Morwell 3840. Tel.M'll 342129

General Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Mrs K.Newnham,
P.O.BOx 302
Sale 3850. Tel.Sale 441046

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Traralgon. 3844. Tel.T'gon 741948.

Meetings commence at 8.00pm on the 1st Friday each month at the City Council Reception Rooms. TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr J.Brooks
3 Nobel Street,
Warragul,3820. Tel.W'gul21563

Meetings commence at 8.00pm. on the 3rd. Friday each month at the Albert Street State School, WARRAGUL.

Subsrcriptions payable to the Honorary Treasurer:
Mrs E.Lubcke,
122a Helen Street,
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If transport is needed on excursions please contact Mrs H.Crane
Tel. Yallourn 622215

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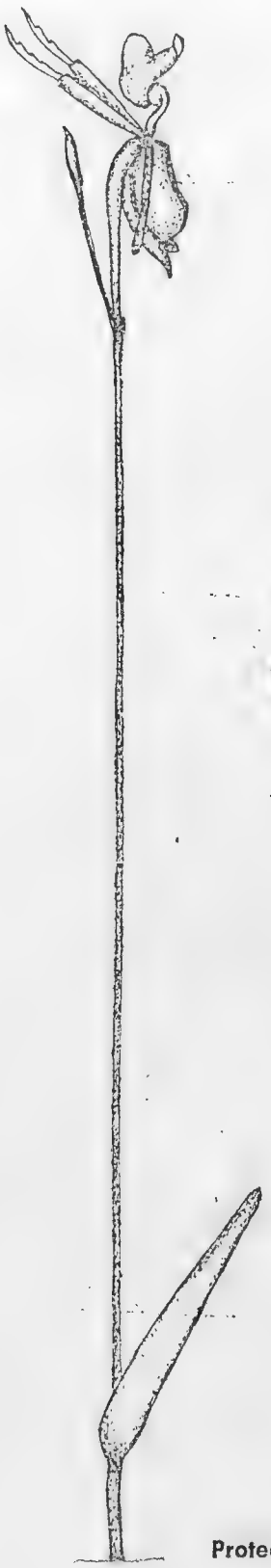
Yallourn. 3838.

AUGUST, 1973

ISSUE No. 116.



Latrobe Valley Naturalist

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COMING EVENTS

Warragul F.N.C.

Meeting:	Friday August 17th at 8.00pm.
Speakers:	Members : Dick, Nancy and Jack.
Subject:	"Out West" with slides.
Excursion:	Contact Secretary for details.

Latrobe Valley F.N.C.

Meeting:	Friday August 17th (note change)
Speaker:	Mr.McCallum from L.V.W.S.B.
Subject:	ALGAE of the Gippsland area.
Excursion:	Saturday 18th August
Meeting Place:	L.V.W.S.B. Laboratories Princes Highway east of Traralgon. Meeting at 9.00AM

Traralgon F.N.C.

Meeting :	Friday 14thSeptember Annual Meeting
Film:	"Turn of the Tide" (Conservation Film)
Excursion:	Labertouche, Contact Secretary for details

The editor must apologise for the error in date of August meeting of Traralgon F.N.C. It is hoped that not too many people were inconvienced by the error.

BANDED PLOVER OBSERVATIONS

On the 6th of June last I disturbed a Banded Plover at 10.00pm. Wondering what was happening I soon discovered a nest with four eggs, however I could only observe these for four days . Probably these eggs were taken.

In a different area a few days later a pair of Banded Plover attempted to get me out of their area. I thought "more eggs" but could not find them. Next day I observed a bird sitting on a small mound in the middle of a pool of water. There were another four eggs, I am afraid the little ones will get wet feet on their first day out.

On 8th July I was in the area and the plover were on the war path. One lone Seagull had invaded their territory and the plover promptly chased the intruder away.

Are these early nestings usual ,or are we to have a very early spring ?.

I also observe that the Red Gum Trees are bursting with very heavy bud formations, and to my knowledge this is about five to six months early ?.

Tom Moretti

WILD AUSTRALIA

We have been advised by the Australian Broadcasting Commission about their second series of Wild Australia films. These are to be shown in Victoria on Tuesday nights at 8 o'clock from July 31st to September 4th inclusive. The series will be followed by a film on crocodiles in Papua-New Guinea, and then from September 18th to October 23rd by arepeat showing of the first "Wild Australia series.

No1. "Albatross Island" A film record of the 1973 ABC Natural History Unit Expidition to Albatross Island off North Western Tasmania.

No2. " The Receding Wetlands". This film, shot in Arnhem Land, describes a typical swamp of this region of northern Australia and the multiplicity of life sustained by its shallow waters.

No.3. "Antarctic Winter". The first of two films, filmed at the Australian station of Mawson in Antarctica.

No.4. "Antarctic Summer". This film records the full annual cycle of Antarctica's animal and plant life, begun in the previous film.

No.5. " The Diminishing Rainforest " Scarcely studied and vastly undervalued, it is shown in this film to be the world's most gentle forest.

No.6. " The Seal Watch " This film, taken at the height of the breeding season, records the annual out-haul of the 800 lb weight territorial males and their violent battles for breeding territory .

No7. "The Crocodiles of Papua New Guinea" This film, shot in the Western district of Papua New Guinea, describes the way man has adapted to living with the last of the truly dangerous reptiles.

This summary taken from information supplied by the Australian Broadcasting Commission for the interest of members of our Club.

REPORT OF EXCURSION TO DARLIMURLA, 23rd JUNE, 1973

Early fog faded into a cool sunny day as we met our leaders, Mr and Mrs Lyndon, at the Darlimurla water reserve across from the pump house, packing 16 cars into the track clearing.

We turned onto a side track leading uphill across a small stream, where Coral Fern was abundant, and on through a partly cleared area where Hard Water and Fishbone Ferns were springing up anew through a carpet of flattened undergrowth and bark. Some Rough Tree Ferns were still standing here and there. Back onto the track edged with Banksia spinulosa in blossom and Giant Club Moss.

We did not have to venture far from the track to discover a fascinating variety of fungi, in fact most finds were along its edges. The pale green lichen (a Cladonia sp.) along its banks showed minute cream coloured fruiting bodies, and fallen sticks carried bright yellow slime mould which melted when touched.

Most of our discoveries were made in this area:

Small yellow-green Bracket Fungi - Trametes cinnabarina
Several pretty pale pinky-orange Coral Fungi : Clavaria
Tiny (under ½") scarlet-capped Hygrophorus miniatus
Small bright yellow Cantherellus
Coltrichia oblectans with browny plywood pattern and dark grey wavy edge.
Deep gold Hypholoma fasciculare (Sulphur-top)
Little wine-capped Russulas
Schizophyllum with its gills split at the edges.
The little brown parasols of Stropharia which always grows on manure.
Laccaria laccata- red stemmed and rufous coloured.
Yellow Stereums with velvety skins, somrtimes lifting into fans.
Tiny Mycena pullata on long stems rising from a hairy foot, and others.
Leotia lubrica- little gelatinous buff coloured caps, with no gills, that looked as though made of plastic.
The Tooth Fungus, Hydnum repandum, which has spines in place of gills.
Pretty long stemmed mauve Hygrophorus lewellinae.
Collybia elegans - small brown caps in clusters, quite elegant.

After lunch we moved further on to the Big Mountain Grey Gum on the Little Morwell River whose banks were lined with Soft Water, Rainbow, Fan and King Ferns. The more adventurous crossed the river by fallen log Bridges, but this area was much less productive of fungi:

Some Tremella, like white translucent gelatinous convoluted lettuce leaves.
Handsome Boletus, red-domed with yellow pores underneath.
Several Cordeceps (Vegetable Caterpillar) one very small one with match-length black oar-shaped fruiting body, yet to be identified (probably C.memeristidis)

After a welcome break for tea our marshall, Mr Lubcke, expressed our thanks to Mr and Mrs Lyndon for a wonderful day, and all wended their various ways homeward with the sun still shining.

B.Kemp

JUNE FUNGI

June '73 has been a poor month for fungi because of the cold and wet. However, the good team of hunters who attended saturday's excursion turned up a surprising number of interesting things both at the Water Reserve and round the Big Tree.

Among those collected were several Puffballs, the Lycoperdons with central chimney pore, and the Sclerodermas, which have hard yellow shells that split outwards in all directions to release the spores. Someone picked up a Geastrum, or Earthstar, which has two skins, one splitting outwards in star shape, the other forming a spore container with central chimney.

Fungi of gelatinous consistency included the firm yellow ones on wood, called Exidia; Pseudohydnum with long whitish spines on the underside; a Tremella with yellow contorted massed cups, and another opaque whitish one.
The Coral Fungi were well represemted by colorful Clavarias and Ramarias, with plenty of the pale pink cotton strands of Clavariadelphus around.
Among the many gilled mushrooms members of Cortinarius and Hygrophorus were noted in some glorious colors and a single good specimen of the mauve H.lewellinii was of special interest. Mr Sterkenburg's contribution, so much admired, was the Brick Cap, Hypholoma sublateritium, the dull bricked caps contrasting with olive green gills in alovely combination.

Wood destroyers there were of the Trametes, Sterium and polyporus and Schizophyllum persuasion, all skins or large brackets on live or dead timber, one, a Rainbow Fungus, in especially delicate tints. I recall someone handing in a fine clump of Pleurotus, of the luminous family. And we found a new Cordyceps, probably C.meneristidis, mentioned in the F.N.C.V.Handbook, although we could not make out the nature of its host insect.

These are just a few of the fungi to be seen in a poor season.
I would like to urge all excursionists to do their homework, so that next time we will have a greater proportion of teachers to students on our very enjoyable outings.

E.Lyndon

NATIVE PLANTS OF GIPPSLAND

Mrs Thompson, a member of Latrobe Valley Field Naturalist Club will give a series of lectures on Native Plants of Gippsland .

Place Morwell High School Time From 7.30pm to 9.30pm

Commencement Wednesday October 3rd. for five weeks.

Fee $5.00. Class limit 20 people.

An introduction to the wonder world of wildflowers. How to recognise them and grow them in gardens, illustrated by coloured slides. Half day excursion to be included one weekend.

Enrolment forms available from the Editor, or at your Library, School etc.
Enquiries to SCOPE P.O.Box 82. Yallourn. Tel.enquiries 622392.

AFRICAN WILDLIFE ADDRESS BY MR.J.LESLIE 22nd JUNE

Mr Leslie treated us to a wonderful trip from Addis Ababa down East Africa through the Wildlife Parks of Tanzania and Kenya. In this territory it is permitted to travel where you will and so find the animals. In the South African Parks vehicles must stay on the roads and often the animals are missed.

Mr Leslie touched on the leadership of Kenya, its tribal rule, communications, the distinct liability of a white skin and the Mau Mau terrorists. Slides depicted people in markets, coffee plantations, etc. and showed Mr Leslie had taken the time and effort to see and understand the people in their natural surroundings. Most of this area of Africa is 3,000 to 7,000 ft. above sealevel, so it is not too hot and much of it is tropical, with a good rainfall.

The new building of "Treetops", built in 3 Cape Chestnut trees, with much additional propping up, has 2 living decks and an observation deck with a guard in attendance. All must be quiet once the animals commence to arrive at dusk. Lights are turned up to prolong the twilight. Salt is scattered near the lake to attract the animals and as many as 500 can be seen in one night. There are 50 rooms with the hazards of branches at odd places throughout. Baboons are friendly but destructive and so must be locked out. Elephants arrive in regimental order with baby in the middle and the chief smeller with trunk raised. They eat the mud around the lake to obtain the trace elements. Warthogs, Waterbucks, Eland, Buffalo and many others come.

Thousands of acres of wildlife reserves with stiff penalties for poaching, provide for the animals of Africa. Rangers are mostly native Africans now. Animals are counted in photographs of a square mile taken from a plane. The number is then multiplied to ascertain the approx. number in the whole area. Control of numbers of animals is exercised to prevent over population.

Some of the animals photographed by Mr Leslie where : -

Giraffes - very graceful and feed on top leaves of Thorn Trees. They fight by standing side by side and thrashing each other with their necks.

Elephants - even a charging one and a baby about 4 weeks old. African elephants have very large ears.

Zebras - which are all marked differently. They cannot be domesticated.

Leopards - with beautiful fur as soft as silk. There was a family in a tree with the kill secured there away from predators and scavengers. The kill lasts 2 or 3 days because of the ventilation in the tree.

Giraffe Deer - Beautiful small animals with glossy coats and hooves.

Oryx - Perhaps the ugliest of beasts.

Gazelles - Delightful animals. Thomson's Gazelle has white bottom with black tail that wags all the time.

Rhinoceros - short sighted with instinct to charge. Horn is matted hair. Horn used to be hollowed out for a drinking vessel which was supposed to prevent poisoning as the hair was said to curl up and crack the vessel if it contained poison.

co ntd....

AFRICAN WILDLIFE cntd...

Lions– Majestic animals that only kill when hungry. They ignore vehicles. In the Rift Valley is the only area in the world where the lions live in trees. Slides showed how relaxed and comfortable they looked there. Lions are located by watching herds to see if several animals are looking in opposite direction to the feeding animals. Also vultures flying overhead advertise a kill. There was a slide of an old lion that had previously commanded a pride, but was driven off because he could not defend it and so was left to survive alone.

Hippopotamus – Mother and baby had lain so long on the edge of the salt lake that they had a high water mark on their bodies but mother would not move for photographers.

Bat-eared Foxes– So fast that the vehicle could not get ahead of them and so had to be satisfied with photo of rear view.

Topi – beautiful animals. Herd grazing looked very peaceful.

Some of the birds seen included the scavenger Maraboo Storks, which are large birds and yet still nest in trees; the Crested Crane with beautiful crest around the head; Buffalo Weavers in hundreds in a tree showing the woven nests with the entrances underneath; beautiful Starlings, Bustards; Ostriches; bald and also white-headed vultures; Rollers, Red Bishop and others.
The flamingoes looked like pink waterlilies from a distance – they need specific conditions of right depth of water, degree of salinity and the right species of blue algae.

Apart from providing information about all these animals and birds, Mr Leslie interspersed his talk with personal experiences on the trip. He showed camping sites and equipment, related experiences with charging Rhinos and Elephants, encounters with mischevious monkeys, using a smile as a means of communication, in the clouds over Kilomanjaro, the production of sisal and many others.

Mr Leslie was also present when the great migration of animals began to leave the plains of Serangetti for the foothills. Approx. 400,000 animals leave in very regimental order, head to tail, in three arms. One arm of the migration went close to the camp on Serangetti plains and the previous year the arm went right through the camp. It is not yet known why the animals migrate at a specific time each year. Scientists are researching this phenomena at the present time.

Another interesting area visited was Ngorongoro, the huge crater with only one track down to minimise poaching. It is 60 square miles in area and 2,000 ft below the rim. Although it is cooler above the rim it has never been proved that any of the animals leave the crater.

A camp of Masai people were also shown. These people drink animal blood mixed with milk, grow grain to eat but do not kill their animals although they eat them when the animals die. Their houses are small and built of manure with very low doorways to stop the animals entering. Wealth is gauged by the number of cows in the herd.

We are indebted to Mr Leslie for sharing his holiday with us and we thank him for a very interesting evening.

Bon Thompson

REPORT OF MEETING HELD FRIDAY JULY 27TH 1973

We were the guests of the Gippsland Institute of Advanced Education at the Newborough Campus for the evening. Mr John Harrison a lecturer from the School of Engineering and Applied Science was our host for the evening.

On arrival we entered a room which had a wonderful display of rocks of all shapes sizes and colours for us to see. There were several mathematical models which had the same shape as some crystals. Members found these most interesting. Here we were given notes describing Geological formations and diagrams illustrating them. Members would find these notes useful for further reading after the meeting and excursion.

At 8.00pm a short meeting was held after which Mr Moretti formally introduced Mr Harrison to us. there were three short films in the form of slide sets. These showed us many geological forms, and the effects of the elements on our mountains, rivers and general landscape. Views of the Colorado River and Monument Valley in the U.S.A. showed how these unusual shapes of rocks were formed over the ages.

Mr Harrison then told us something of the chemical composition of certain rocks. This aspect we found interesting and worthy of some further study on our part. In this technological age we must know these things.

Discussion on the Igneous Rocks, Sedimentary and Metamorphic Rocks took place. We would see examples of these rocks on the excursion the following day.

Question time took place over a cup of tea which was kindly arranged for us in the staff room. Mr Harrison seemed to be kept busy with the people who asked questions.

We were pleased to welcome some new members at this meeting.

Mr Moretti thanked Mr Harrison for his time and the work he had done to make this evening an enjoyable and informative one for us all.

L.Padfield

REPORT OF EXCURSION HELD SATURDAY JULY 28TH 1973

The excursion was led by Mr and Mrs Williams members of L.V.F.N.C.. Mrs Williams had prepared notes on the geology of the areas which were to be visited, also a time scale for reference and a map of the Latrobe Valley showing the situations of the various geological phenomena.

The first stop was along the Latrobe River near the Pumphouse. Here there is Jurassic conglomerate, consisting of pebbles and boulders up to 6" -8" across. Further along the river Silurian Sandstones could be seen. This deposition took place on the edge of what is called the Yallourn Monocline
Upstream from this point where the dam wall has been built is what is known as the Latrobe River Gorge. We can see how the river has been forced to cut its way through the rising lands there.

contd..pp7

REPORT OF EXCURSION JULY 28th contd..

THE QUARRY. There are two quarries along the road as the party soon discovered. Due to a misunderstanding the wrong one was visited, but it was none the less interesting. During the Eocene – Oligocene periods Victoria was a relatively unstable area of volcanic activity and earth movements. Lavas spread out from fissures and spread out to form lava plains. The extensive lava flow(referred to as the "older basalts") could be seen to perfection at the quarry face. The volcanic soil derived from the basalts forms the rich potato growing soils in the South Gippsland Hills.

Quarry Road lookout. Baw Baws were discussed as an example of the emplacement during the Upper Devonian period of granite and granodiorite , and now remains as an upfaulted remnant of an erosion platform which existed many thousands of feet above the present level of the land.
From the lookout it is possible to get an overall picture of the structure of the Latrobe Valley

Boola Area. These sedimentary beds once laid horizontally under shallow seas but are now steeply tilted and give an idea of the tremendous force involved in the folding process.Mrs Williams discussed the use of small animal fossils known as Graptolites in dating rocks.
Further along the road the junction between the Silurian and the Jurassic may be seen. This is an outstanding exposure of Jurassic conglomerate referred to as basal conglomerate. This superb face is a geological highlight of Victoria. Jim Peterson's Memorial Cairn is opposite this face across the deeply entrenched Tyers River.

The Lime Kilns on the East branch of the Tyers River were opened in 1927 and the lime used in making mortar. The rock is fossiliforous limestone of Siluro Devonian age. Fossils in the limestone include corals, sea lilies(crinoids) and brachiopods(a shell fish) preserved as liminite which has taken the place of the original shell.

The Yallourn North Open Cut and Rintoul's Creek Road were not visited .

The South Gippsland Hills. These areas could be seen from the Quarry lookout. They have been described as an excellent example of naturely dissected block mountains. The Balook Lobe(the Jeeralangs etc) were seen aswere the hills formed along the Carrajung Monocline being steeper because of the edging of Older Basalts compared with the more gently sloping hills on the Yallourn Monocline underlain by folded sedimentary beds.

Mrs Williams has said that she and Mr Williams enjoyed themselves on the excursion and hoped that they were able to show club members some of the outstanding geological features of the areas visited. Thus helping us to an appreciation of the fascinating study of geology.

L.Padfield

This article has been prepared from information supplied by Mrs Williams ,but the author must accept responsibility for any errors or inaccurate statements as her knowledge of geology is limited ,but may be improved after reading the notes supplied.

REPORT OF BUSINESS MEETING HELD 24th JULY 1973

Wild Australia . Details of these programmes were received from the Australian Broadcasting Commission. Summary on Page 1 of L.V.Naturalist.

Discussion on arrangements for July meeting and excursion.

Business Meetings. As this was the third meeting held at the State School and only four members took the opportunity to attend, it was decided to once more hold these meetings at the homes of members.
Any member is welcome to attend these meetings ifthey are interested in the business side of the club, or if they have any matter for discussion.

Next Business Meeting will be held at the home of Mr and Mrs Lubcke ,122aHelen Street, Morwell on Monday August 13th.

General Meeting in August will have a change in date to 17th August . Further details of meeting and excursion on front cover inside page.

Flying Duck Orchid Cards. The committee have had a number of cards printed with our own motif in the corner. These will be available to members at a small cost if they wish to purchase any .

Several enquiries from people interested in the club activities.
The Secretary has sent details of our club to these people.

Land Conservation Council.
The Club Submission has been completed for the Rosedale block.

Conservation Council of Victoria. Details of the First quarterly meeting held Friday June 29th were received from Mr Brooks. These items available from the Secretary for perusal.

Supper Roster for meeting August 17th. Tyers Ladies

Morwell National Park. Recently some of L.V.F.N.C.members noticed that there had been some damage caused to the park by trail bike riders.
This matter was discussed and decided to write to the Morwell Shire Council to ask if a fence could be constructed to stop these intruders. We have had a reply from the council and are hopeful that something can be done, with the help of the Morwell Shire and the National Parks Service who have also been informed of the situation.
A copy of the National Parks Service annual Report states that the park is in good condition, but the removal of Native Forest and understory on private land adjacent to the habitat of Gunn's epiphytic orchid is viewed with concern The Morwell shire have co-operated with the National Parks Service in improving fire breaks, access and walking tracks.

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SALE F.N.C.

Honorary Secretary: Mrs K.Newnham,
P.O.Box 302
Sale 3850. Tel.Sale 441046

Meetings commence at 8.00pm on the 1st Friday each month at the C.W.A.Rooms, Macarthur Street, Sale.

TRARALGON F.N.C.

Honorary Secretary: Mr J.Wall
156 Kay Street,
Traralgon. 3844. Tel.T'gon 741948.

Meetings commence at 8.00pm on the 1st Friday each month at the City Council Reception Rooms. TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr J.Brooks
3 Nobel Street,
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COMING EVENTS

WARRAGUL F.N.C.

Meeting: Friday 21st September
Speaker: Mr Ian McDonald
" Wirilda Project "
Excursion: Sunday 23rd. September. Meeting at the Tyers River Bridge on the Tyers Yallourn North Road at 10.30 am.

LATROBE VALLEY F.N.C.

Meeting: Friday 28th September
Speaker: Mr N.Vincent
" Birds of East Gippsland"
Excursion: Saturday 29th September to the Sale area Meet at Traralgon Methodist Church 10.00 am.
Special Excursion: October 13th 14th to Wilsons Promontary Camping for the weekend.

TRARALGON F.N.C.

Meeting: Friday 5th October
Speaker: Mrs J.Johnstone
" Birds and their environment "
Excursion: Valencia Creek or Stoney Creek further details from Secretary

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REPORT OF THE SALE FIELD NATURALISTS CLUB ANNUAL MEETING

Another successful year for the club was reported by the president Mr Peter Turner, at the annual meeting on Friday 3rd. August.
Membership continued to increase, and the variety of natural history subjects and excursions maintained.

The club made submissions for the preservation of the "Holey Plains" South Gippsland area, supported by personal submissions from almost all the individual members, also the Mitchell River dam at Taberabbra, and the retention of the Latrobe River for Gippsland.

The Secretary Mrs Ken Newmham, gave a list of the years activities in her report. Guest speakers were -- Mr Fred Rogers, " Acacias ",
Miss Jean Galbraith "Plants of the Coastal Area ", Mrs Lyndon "Fungi ",
Mr Gaulton " Latrobe Valley Coal Measures", Mr A.Woolcock "Meteorology ",
Mr Don Sanders "The Mitchell River Gorge ", MrColin Chalmers" Cape Barren Geese",
Mr John Leslie " Natural History of Africa" .
The nine field excursions were well supported.

A number of working bees were organised to maintain and plant more native trees in the Club's Arboreteum near Lake Guthridge. Now thatwater has been piped to the area, it has made it much easier to water the trees, as previously all the water had to be carried in buckets across the road from Lake Guthridge.
52 trees were planted during the year. These were donated by Dr and Mrs Fitzpatrick Mr Ken Newmham, Mrs Lyndon, Mrs P.Andrews, Mr Duncan, Cathryn Allan, Mr Jamison and Mr and Mrs L.Newmham.

Office bearers were appointed for 1973 - 74.

President	Mr Peter Turner	Vice Presidents	Dr D.Fitzpatrick Mr J.Smith
Secretary	Mrs Ken Newmham	Treasurer	Mrs R.Webb
Librarian	Mrs D.Fitzpatrick	P.R.Officer	Mrs Len Newmham

Thanks to Mrs Enid Newmham for these notes.

REPORT ON THE SALE F.N.C EXCURSION SUNDAY 5TH AUGUST 1973

It was a fine sunny day and 25 members assembled at Kernot Hall at Yalloum. There we met our leader, Mr Gaulton a geologist from the S.E.C., and he escorted us to the information centre. Here were a number of specimens of fossils in coal and models of the Yallourn and Morwell areas.

The types of fossils found in the coal according to the labelled samples were "Fossilised Aganthis Wood" known as Kauri Pine -- Fossilised "Phyllocladus Wood" known as Celery Top Pine. Leaves of the "Olèites"species and bark and resin. There was also a specimen of light brown coal, thought to contain Eucalyptus pollen.

contd..... pp 2

SALE F.N.C.EXCURSION cntd....

From the information centre we travelled to the open cut and drove down to look at the coal seam. It was a very interesting place, and we were told the over burden which had been removed varied in thickness from 100 to 300 ft. according to the locality. The coal seam also varied in thickness, some parts being up to 200 ft. thick. Beneath the coal is a grey clay.

Members then walked alomg the coal face and dug out specimens of fossils. It was easy to see the bark of trees, the grain in the wood, the leaves and twigs, and even what looked like tiny cones or seeds.
It was almost four o'clock before everyone finished their collecting.

We all enjoyed the excursion, but many of us felt we would like more information about the types of vegetation existing during the Oligocene and Miocene periods, not only in the Latrobe Valley, but in Gippsland.

Enid Newnham
Sale F.N.C.

ADDRESS ON ALGAE BY MR. STUART MC CALLUM 18th AUGUST 1973

The Latrobe Valley Water and Sewerage Board Water Quality Laboratory has the role of controlling and monitoring the water quality in the Valley and district. There are three main sections of the laboratory :-
The Chemical, pollution and biology sections.

The chemical section is concerned mainly with testing water for suitability for drinking and industrial use. This necessitates comprehensive testing to detect levels of physical and chemical properties in the water.
The physical properties can be caused by organisms or suspended matter while the chemical properties are caused by acids, salts, metals, etc. entering the water.

Analysis of other substances are carried out for industry or agriculture, e.g. and ysing pine needles for APM for fertilizer application or soil analysis for trace elements, etc.

The pollution section is concerned with testing samples of waste disposal and air pollution for E.P.A. licenses.

The biology section deals with bacteria and algae. Testing for bacteria ensures safety of water supplies as it is a check against contamination by faecal matter. Because E.coli bacteria live only a short time in water and faecal streptococci will endure much longer, these can be an indication of the length of time since pollution occured. Algae counting enables the identification of types of plankton - some beneficial, some harmful or some of nuisance value.

Ground water is mostly clean but surface waters are subject to pollution and consequent growth of bacteria, fungi and algae. Some algae release metabolites causing taste and odours, others clog filters, cause large floating mats, form slimes onreservoir walls or block pipes, while others are toxic to cattle, fish and birds.

contd pp3

Address on Algae contd..

Limiting factors to the growth of algae are turbidity and water movement in the rivers. This restricts light which restricts growth of algae.
But in reservoirs, where turbidity settles and water is quiet, the sunlight penetrates and growth develops. Also shape and size of reservoir, type of soil and climate can all be important limiting factors.

Algae are microscopic single celled plants containing chlorophyll in one or more of its forms. They range in size from two microns to the large kelp of the sea but most are 20 – 30 microns in size – still not visible to the naked eye.

Algae are essential to life in rivers and lakes providind a source of food for crustacea, insect larvae, worms, fish, etc. Chlorophyll enables algae to use the energy from the sun to combine carbon dioxide and water to form starch and oxygen. Without plants that contain chlorophyll animals would have neither food to eat nor oxygen to breathe.

There are 7 phyla (or large families) of algae with many genera and still more species. Just as we have with the higher flowering plants.
Mr McCallum illustrated many differing genera and explained their properties and the problems some of them cause. Algae are sampled by net, a 1 litre volume is filtered through fine sand and examined under a microscope. Any unfamiliar types have to be identified by using a key.

Township water is often supplied from small rivers that have run through areas of intensive grazing and fertilization and finishes up in small shallow reservoirs. The silts drop out allowing the light to penetrate and the water to warm and so algal growth develops. Growths can be treated but few algicides exist that are toxic only to the troublecausing species. Copper sulphate is used and results in heavy reduction in the number of algae present. However the copper is precipitated rapidly and it is often the unwanted species that return quickly and use up the available nutrients, preventing the more desireable species from growing. Algae are not the cause of the problem, they increase because of the inflow of nutrients which stimulate blooming.
Catchment management is required to ensure thatpollution cannot enter the reservoir It is important that run off from fertilized fields and washings from dairy farms do not enter the catchment area. Some factors effecting the formation of algal blooms are salinity, wind, acidity, temperature, light and nutrients.

For the biologist, algae are a valuable indicator of the atate of a body of water – a high algal count generally means more enriched or polluted water. The chlorophyll in the algal cell can also be used as an index.

Algae and other aquatic vegetation can be used as a means of removing the nutrients from a body of water, as they absorb phosphates and nitrates.
The growth can then be removed by filtering and used as stock feed or other sources of protein.

Bon Thompson

WINTER DAY AT KANGAROO ISLAND, SOUTH AUSTRALIA.

Adelaide Airport before dawn on 14th June 1972. Driving rain. A somewhat bumpy trip to Kangaroo Island with occasional brief glimpses of the ocean through broken cloud and rain squalls. Once over the Island we could see a sodden landscape with muddy streams and dams. A couple of runs over the airstrip before vision good enough for the plane to land. Some time later we learned that the guest house manager on the Island arranging the day trip had rung the airport to see if a plane was really braving the weather and coming over?

Bleak scene outside the airport. A few hardy Eucalyptus ficifolia near the car park and banks of scrub visible in the mist of shrouded distance. Soon an 18 mile bus trip to American River. Six passengers rattling along in an airways bus built for forty. Two of them highly delighted with the amount of birdlife and wildflowers they saw. Plover and Ibis, a Common Myna, White-faced Herons, Silver Gulls and Terns once we rrached the coast and Swans. On this short drive we were able to recognise quite a number of flowers and shrubs already known to us... Correas, both red and green,(we later learnt there are five species found on the Island in a variety of colours), Cassythe melantha over many of the shrubs, Banksias - both marginata and ornata grow in this area, Grass-trees, Wild Irishman, two plants are known by this name, Petrophila multisecta and Isopogon ceratophyllus. Also Sheoaks, several Acacias, Sedges, Ti-trees and Eucalypts. There were Melaleucas flowering, Box thorns and Boobialla, Soursob(Oxalis cernua) and Burrs. Some of the soils appeared to be limestone, with clays and patches of ironstone pellets on the surface.

At American River there were sandstones bordering the beach with ti-trees framing the views across the bay. Pittosporum and Acacia pycnantha were seen. We here transferred to a smaller vehicle and were soon travelling towards Seal Bay. Along the roadsides we saw Red Correa, White Heath, Bell Heath, Goodenia, Hakeas, a Pimelea some three feet tall, more Dodder. There were parrots, two Mountain duck, Magpies and Kangaroos.

Sheltered among the sand dunes at Seal Bay we found quite a number of the Hair Seals for which this area is famous. Some were alone, some in pairs of a female suckling her pup, and there were family groups - a bull and his harem and their young. Of this latter group one female was most belligerent in chasing us away while the much larger and battle scarred bull continued dozing in the sun. The crests and sides of the dunes were well clothed with Coastal Saltbush (Atriplex paludosa), New Zealand Spinach (Tetragonia tetragonoides), and pig face- both the Angular and the Round Leaved, while the valleys between were bare sand where the seals sheltered. At this spot we also saw Flame Heath and a prostrate Correa. The wind so wild and cold that we did not stay long.

Our next stop was at the Kelly Hill Caves where a variety of Eucalypts and smaller shrub growth gave shelter from the wind. There was a native pigeon sighted, Wattle Birds in the trees, and Cape Barren Geese in a nearby paddock. In the course of the walk to the cave entrance we found Native Aster (Olearia rudis), Clematis mycrophylla , Dianella revoluta, Hardenbergia violacea, Thomasia petalocalyx, a Baeckia and Bracken.
Although not extensive the caves were attractive with their varied formations.

contd.....pp 5

WINTER DAY AT KANGAROO ISLAND contd...

From the caves we went on to the Flinders Chase Fauna and Flora Reserve. In the cleared areas there were dozens of Kangaroos, Emus, and Cape Barren Geese feeding together in their own groups. The road led on through thick bush to our first stop in the Chase at Cape de couedic where from the base of the lighthouse we could look out across the Casuarina Islets (or the Brothers), two low islands with sparse flattened growth on their surfaces. From the lighthouse a painted trail led over the pitted limestone to the extremity of the cape where we climbed down the cliff and along its side to look through the spectacular Admiral's Arch. Blackened stalactites hung from its roof forming an impressive frame to the wild seas breaking against the cliffs to the west. The three distinct types of rock in the formation were easily seen - limestone above, softer eroding sandstone which had worn away to form the arch, and a darker harder base rock. From here we could look East around the the cliffs to the Remarkable Rocks. These are a collection of huge granite boulders eroded into fantastic shapes as they sit atop a huge dome shaped mound of granite. When we reached them we were warned not to venture on the seaward side of the rocks for fear the wind plucked us from our footholds and flung us into the sea below. Our next stop was at a more sheltered place at Rocky River where we saw Koalas and fed the bread and butter left from our lunch to the Kangaroos. Many of them appeared to be females with young in their pouches but not a joey did we see.

The route back to American River took us along the West End Highway which divides Flinders Chase from farming land, and then along the Playford Highway roughly across the centre of the island. Although none of the Island is over 1000 ft. above sea level this road gave us views, between showers, over the valley of the Cygnet River to the North and over farmlands to the South. Throughout the day we were impressed by the way theroadsides had not been scraped bare but had been left with attractive wild edges which also formed windbreaks for the farms. Likewise clearing of the farms for pasture had been done in such a way as to leave thick shelter belts of native growth along many fence lines.

While we waited for dinner at American River we took a quick walk along the windy foreshore and were rewarded by the sight of four pelicans floating on the water and over a dozen more wheeling overhead. These latter soon landed on the inlet and the whole formed an elegant flotilla in the fading light.
The weather had been improving all day and there were broken clouds and no rain when we returned to the airport. Once airborne it was a treat to watch the plane's shadow thrown by the almost full moon as we left this fascinating Island.

Eulalie Brewster

" THE VOYAGE OF THE BEAGLE "

I have just enjoyed reading " The Voyage of the Beagle " by Charles Darwin edited by Millicent E.Selsam. The " Beagle " with Charles Darwin on board left Plymouth, England on 27th. December 1831 and returned to Falmouth on 2nd. October 1836.

The following extract is from Darwin's account of a journey from Sydney to Bathurst taken with one man and two horses.

" The trees nearly all belong to one family, and mostly have their leaves placed in a verticel, instead of, as in Europe, in a nearly horozintal position: The foliage is scanty, and of a peculiar pale green tint, without any gloss. Hence the woods appear light and shadowless: this although a loss of comfort to the traveller under the scorching rays of summer, is of importance to the farmer, as it allows grass to grow where it otherwise would not. The leaves are not shed periodically: this character appears common to the entire southern hemisphere, namely South America, Australia, and the Cape of Good Hope.
The inhabitants of this hemisphere, and of the inter-tropical regions, thus lose perhaps one of the most glorious, though to our eyes common, spectacles in the world - the first bursting into full foliage of the leafless tree.
They may however, say that we pay dearly for this by having the land covered with mere skeletons for so many months. This is too true; but our senses thus acquire a keen relish for the exquisite green of the spring, which the eyes of those living within the tropics, sated during the long year with the gorgeous productions of those glowing climates, can never experience.
The greater number of the trees, with the exception of some of the blue-gums, do not attain a large size; but they grow tall and tolerably straight, and stand well apart. The bark of some of the eucalypti falls annually, or hangs dead in long shreds which swing about in the wind, and give to the woods a desolate and untidy appearance ."

Those of us who have experienced a northern spring will know just what he means when he speaks of "one of the most glorious spectacles in the world".

Kathleen Eve.
Warragul F.N.C.

REPORT OF EXCURSION L.V.F.N.C. August 19th 1973

Eighteen members met at the Latrobe Valley Water and Sewerage Board laboratories at 9.00am. Mr McCallum had collected some pond water for examination through the Stereo-microscope. This instrument gives three dimensional vision and although it was used at only 25 magnification several specimens of pond life were observed moving about in the petrie dish. One tiny crustacea had red spots on which proved to be ared algal parasite.

Some of the meters explained included the Ultra Violet Spectro-photometer which registered the results on a graph paper and was used to detect the presence of salts after the water had been suitably prepared.

contd pp7

REPORT OF EXCURSION AUGUST 19th contd...

The Atomic Absorption Spectrophotometer used the different atomic structure of elements to register their wavelength absorption and so denote their prescence. Different lamps were used to detect different metal elements. In this instrument the elements characteristic wavelength is absorbed by atomic vapour generated in a hot flame and the resulting flame registers the result.
Another meter detected sulphur dioxide or other gases in the air.
The pH meter detected the pH content or acidity of the water. The Conductivity meter used the fact that the greater number of ions present in the water the greater its ability to conduct electricity.
The Turbidity meter recorded material in suspension in the water.

There were several very delicate and precise balances enclosed in their own individual glass cases, and a small furnace for drying out samples.

Finally we entered the Bacteriology Laboratory with its several " ovens" to keep specimens at temperatures of 37 deg. C. or 44 deg. C. and a refrigerator set at 22 deg. C. as the most beneficial temperature for the growth of general bacteria for bacterial counts of water.

There were also specimens of a specific species of a detrimental bacteria.

The time passed very rapidly and far too soon it was time to thank Mr McCallum most sincerely and to make our departure.

The excursion proceeded to the Glengarry area to inspect canoe trees. Two of these were River Red Gums and one was a Yellow Box. A pause was made at the Cowwarr Weir where a number of birds were observed.

Lunch was at Stoney Creek under inclement conditions. However as the weather cleared ,a walk up the creek resulted in finding a Lyrebird's nest containing a chick. Many birds were active among the flowering Eucalyptus polyanthemos (Red Box) and the Long-leaved Waxflower, Eriostemon myoporoides, was in bloom.

The final discovery for the day was a White-winged Chough's mud nest high up in a tree. It was a big nest but Cayley states that three or more birds help to build the nest and two females may lay in the same nest.

Bon Thompson

Mrs Thompson has prepared two other articles referring to algae and the talk of Mr McCallum. Space does not permit the printing of these in this issue. The October issue of L.V.Naturalist will contain these articles.
Thank you Mrs Thompson for the time taken in the preparation of these articles.

REPORT OF BUSINESS MEETING HELD 13th AUGUST 1973

There were 10 apologies for this meeting.

Subscription to Victorian Field Naturalists Clubs Association to be paid Four Dollars is the amount for this club.

Final arrangements made for meeting August 24th and excursion August 25th.

Holiday for the Editor
Decided to call for a volunteer to type the Naturalist while Mrs Padfield is on holiday during September and October.
Mrs Puckey is willing to do this.
Contributors to Naturalist. If you have any copy for the October issue please send to Mrs Puckey, 5 Brown Street, Trafalgar.
We hope this is not an inconvenience for you.

Wilsons Promontary Camping weekend October 13th ,14th.
This will be an enjoy yourself weekend, no formal leader appointed.
Expected that some of our South Gippsland members might attend.
Members attending this weekend to please note NO DOGS OR CATS ALLOWED IN NATIONAL PARK. NO GUNS. NO FLOWERS TO BE PICKED.
There should be a profusion of flowers for all to see and photograph.

Next General Meeting. September 28th. Mr Norm Vincent from Bairnsdale will speak on Birds of East Gippsland.
Mr Vincent will join in excursion the following day.
Members to meet at the Traralgon Methodist Church at 10.00 am.

Next Business Meeting will be held Tuesday September 25th at the home of the President Mr Moretti 131 Princes St Traralgon commencing 7.30pm.

Any member welcome at these meetings to take part in the discussion or bring any important matter to the notice of the Committee.

Supper Roster September 28th Mrs Wall Mrs Tate

Members are asked to bring any suggestions for speakers or excursions to the next meeting as the programme for 1974 will be under discussion soon.
We would like to hear about any interesting subjects members would like, but they must be connected with Natural History interests.

So put on your thinking caps! !

Latrobe Valley Naturalist.

Details ofcontributing clubs are as follows:

Latrobe Valley F.N.C.

Honorary Secretary: Mrs I.Peterson
14 Barry Street,
Morwell 3840. Tel.M'll 342129

General Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Mrs K.Newnham,
P.O.BOx 302
Sale 3850. Tel.Sale 441046

Meetings commence at 8.00pm on the 1st Friday each month at the C.W.A.Rooms, Macarthur Street, Sale.

TRARALGON F.N.C.

Honorary Secretary: Mr J.Wall
156 Kay Street,
Traralgon. 3844. Tel.T'gon 741948.

Meetings commence at 8.00pm on the 1st Friday each month at the City Council Reception Rooms. TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr J.Brooks
3 Nobel Street,
Warragul,3820. Tel.W'gul21563

Meetings commence at 8.00pm. on the 3rd. Friday each month at the Albert Street State School, WARRAGUL.

Subsrcriptions payable to the Honorary Treasurer:
Mrs E.Lubcke,
122a Helen Street,
Morwell. 3840.

If transport is needed on excursions please contact Mrs H.Crane
Tel. Yallourn 622215

The LATROBE VALLEY NATURALIST is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect of Natural History are invited from members of all clubs and should be addressed to:

Honorary Editor (Mrs L.Padfield)
42 Strzelecki Road,
Yallourn. 3838.

OCTOBER, 1973

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COMING EVENTS

WARRAGUL F.N.C.

Meeting:	Friday, October 2nd
Speakers:	Mr. & Mrs. Joe Dowling
Excursion:	Sunday, October 21. Details from Secretary.

Latrobe Valley F.N.C.

Meeting:	Friday, October 26th
Speaker:	Mr. W. Cane "Roob Rob" CinnamonFingers
Excursion:	Please note change of date for excursion - October 28th, to Avon Channel Country.

Traralgon F.N.C.

Meeting:	Friday, November 2nd
Films:	
Excursion:	Burgoynes Gap

ACROSS THE NULLABOR AUGUST 1972

On a perfect summery morning we pulled out of the big town of Port Augusta on the head of Spencer Gulf, with the sun behind us and the bumpy ribbon of bitumen running away through the saltbush plain.

" The shining plain that is said to be
The dried up bed of an inland sea."

Dotted all over the land were the little umbrella-shaped trees of the Western Myall, (Acacia sowdenii) , and soon isolated flat-topped mountains were cropping up ahead. Out to the left lay Whyalla and Iron Knob, and ahead lay miles and miles of wheatlands and mallee right across the top of Eyre Peninsula, 291 miles to Ceduna. Picturesque country, well clothed in a variety of bushes and shrubs, spinifex ridges or native pines; somewattles flowering, plenty of bird life. Recent rains had made the Kimba people happy and they seemed to be revelling in the warm sunshine that we imagined to be usual there.

Curious little greenish yellow Paddymelons lay all along the road edges; Cucumis myriocarpus is a South African introduction and when the vine withers away the ripe fruits lie round on the sand. Occasionally we passed dark pink Boronia like bushes. "We'll stop at the next one " we said. But somehow we never did. When the road ran alongside the railway and made a doublereserve of pleasant mallee it greatly added to our enjoyment. We were in Ceduna in late afternoon, with the hot sun reflecting off the steely waters of Denial Bay.

A good nights rest by the sultry sea set us on our way to Penong, where we said goodbye to the bitumen, and we hoped, the wheat. Now began the gravel, the first fifty miles not too bad at all. We now crossed two cattle grids and were strongly reminded of our Victorian high country. Small open plains andvistas of grass ringed with what could easily be Snowgum; ridges of yellowish rocks pushed up along the edge of the road; we could have easily have been heading for Mt Howitt The illusion was very strong at times.

Soon we were entering the 1400 square miles of Yalata Aboriginal Reserve and passing by its head station, Colona. The track, sorry, the Eyre Highway, crossed some sandhills and the trees became taller. The country is said to carry 10 to 25 sheep to the square mile, depending on the season, but this was a very dry year. A small party of blacks loomed up, standing in the centre of the road, waving boomerangs they hoped to sell. Tourists who wish to trade are advised to come into the mission headquarters, so we drove steadily on. The lady leapt to safety just in time. The screeches that followed us did not sound very complimentary.

The track now went from bad to worse to absolutely terrible as the day wore on. The corrugations and bars of hard pan made everything jump and rattle, shudder and judder, till it became very trying indeed, even with frequent changes of driver and reviving cups of tea. Now we were on the famous plain itself with the snowy line of sand dunes visible, like a low cloudbank, at the very head of the Bight. An endless plain of myall and saltbush stretching east, west and north to the horizon. Now we were passing the gate of White Wells out-station and would have liked to go down to the sea where it is bounded by the 200 to 300 foot cliffs at the edge of the plain. At no time was there any completely treeless desert.

contd...

ACROSS THE NULLABOR cont'd..

If one looked closely the whitened skeletons of the myalls were always present. They are a vanishing race, no regeneration is possible where sheep, cattle, rabbits, and some kangaroos are all competing for the scanty herbage.

The shed tanks came and went. In earlier days the tanks were underground, thatched with myall and mallee against evaporation. Today the huge containers stand above ground under the shade of wide catchment roofs, securely netted against vandals. Many travellers camp by these tanks and the state of the surrounds can be best left to the readers imagination. Colonies of Welcome Swallows lived in the vicinity, dashing up to take advantage of fleeting puddles left under the water taps. Perhaps the commonest desert bird, beside the Crows.

One of the most interesting animals of the plain is the Hairy-nosed Wonbat a gregarious creature that lives in large colonies with cosy little runways between. They throw up heaps of yellow gravel, but so do the road workers who are always poking at the soil looking for good road metal. However, towards evening we saw the animals lying out in the warm sun taking their ease before the night's hunt for food. Many of them are killed by fast traffic, as are the kangaroos. These too we saw at dusk, standing tall and majestic above the low herbage. Near Nullabor station is a group of tall Tuart gums (E. gomphocephala) and one wonders why more of these sturdy eucalypts havent been planted in such shadeless land. The Tuart is used throughout West and South Australia as shade on the seafront and apparently thrives in dry sand. In the southwest of W.A. it becomes a magnificent forest giant and the remaining remnant of the Tuart forest has been preserved. The Nullabor Plain is largely hollow beneath the surface crust of rock and many enormous caves are known, some with very deep underground lakes. So far as I know, they are not open to the general public as yet.

We pulled off the road this evening and camped among the myalls, a night of brilliant moonlight and black shadows, and a strange strong smell of sheep, some 55 miles short of the West Australian border.

E.Lyndon

BACTERIAL COUNTS

Notes from reports by State Rivers and Water Supply Commission.

Water samples are prepared for bacterial counts by mixing 15 ml of agar with 1 ml of water sample and this mixture is incubated.

Bacterial counts are carried out for three main purposes.

1. Plate Counts at 22 deg.C. and 37 deg.C.

Natural harmless water bacteria multiply freely between 20 and 30 deg. C. The greater the concentration of organic matter in the water the more bacteria will grow on a 22 deg. C. plate.

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BACTERIAL COUNTS contd...

Parasitic bacteria and bacteria from soil and faeces multiply best around 37 deg.C. Such bacteria will survive for a certain length of time in a water supply although they do not multiply freely at 37 deg.C.

In both these counts individual species are not identified, but a total count is made of each group.
There is no definable level at which counts become unacceptable. Many factors must be considered :- nature of sample, water usage, and if lake or river, rate of flow etc.

2. Coliform Count - Coliforms (a group of bacteria) grow naturally in the intestines of animals, birds and humans. Because they can be associated with pathogens (bacteria or virus that cause disease), any member of this group detected in drinking water is of possibly sanitary significance.
Ideally there should be zero coliforms in drinking water, but this is usually only possible in chlorinated supply. Diseases from intestinal pathogens pass readily from man to man via water born bacteria but not from animals to birds to man via water.

3. E.Coli Count - E.Coli is generally not a pathogen in its natural environment. It is the most frequent intestinal coliform and its presence is the most sensitive indicator of faecal contamination. Its life span is the same as that of the common water born pathogens. E.Coli count does not differentiate among bird, animal or human origins of faecal contamination.

Bon Thompson

ALGAE IN FARM WATER SUPPLIES.

NOTES FROM REPORTS BY STATE RIVERS AND WATER SUPPLY COMMISSION.

Types of algae - for convenience they are divided into four main groups:-
green algae, blue green algae, diatoms and flagellates.
Flagellates, moving organisms, are sometimes responsible for tastes and odours.

Problems - 1. Taste and odours in domestic storages.
2. Clogging meters, valves trickle filters, irrigation lines.
3. Stock poisoning by thick surface scums on dams.
4. Deoxygenation and fish kills by surface scums.
5. Corrosion of metal tanks and other structures.
6. Slimes on channel and tank walls, meter blades, etc.

Stock Poisoning -- this is caused by specific members of the blue-green algae. These algae quickly form thick scum-- sometimes overnight - and stock known to have taken this scum have become ill extremely quickly and some have died. Algae release toxin which if swallowed causes severe stomach and respiratory disorders, staggers and death. Death can occur within fifteen minutes after drinking.

Control - Prevention is best so minimise factors required for algal growth, e.g. cover the storage to exclude sunlight, clean dam and control weeds, control drainage and runoff as much as possible.

Chemical Control - Copper sulphate is the algicide most often used. A number of other algicides are available but they should not be used under normal circumstances.

Bon Thompson

Latrobe Valley F.N.C. Members will meet at Butter Factory Heyfield and will leave there at 10 a.m. sharp. Leader will be Mr. W. Cane.

Next business meeting to be held on October 23 at Mr. Puckey's home at 5 Brown Street, Trafalgar at 7:30 p.m.

A special meeting will be held at the home of Mrs. Petersen, 14 Barry Street, Morwell at 7:30 p.m. to discuss itinerary for next year. Anyone with ideas re this matter please send in details or come along with your suggestions.

Photoflora 74 to be held in Morwell March 13, 1974. Entry forms are available from Secretary, Mrs.Petersen

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National Council ofWomen of Victoria will hold a one day seminar. "The Gipps Environment" at L.V. Little Theatre on Saturday 20th October 1973. This will commence at 10:30 a.m. Details from Mrs. N. Manchester, P.O. Box 117, Traralgon.

Report of Traralgon Field Naturists General Meeting and Excursion:

At the General Meeting held on September 14, Mr. A. Chambers provedhis popularity with the members by being re-elected as President once again. Mr. J. Wall and Mrs. Wood retained their offices of Secretary/Treasurer and Vice President Julie Chitty was elected as Publicity Officer.

An excursion to the Laber-touche Wild Flower Reserve took place on Saturday, September 15. There we were joined by the members of the Ringwood Field Nats. The leader was Mr. Marshall, from Ringwood. After meeting at 1:30 the 16 cars proceeded along the narrow winding track into the Reserve. There were many native plants in bloom, the acacias making a very bright show. Silky nakea, banksia-spinulosa, and crematis, were also seen. There is a Boronia area and a Grevillea area. There we found a Tree Grevillea which is very rare and fully protected.

Two species oforchid were found: the Wall Flower Orchid diuris Longifolia, and the Alpine Greenhood : Pterostylis Alpina. Some other plants in flower were Hibbertia, Bauera Wiry, and Rosy Health Myrtles.

Phytopthora - Couldn't find the word anywhere - all writers simply called it Cinnamon Fungus - the speeres which causes root rot in native and exotic plants.

About Members:

Though still not strong following recent illness our President was able to preside at the September business meeting. He will hot be back at work until sometime next month, but we are delighted to know he is improving. Best wiwhes Mr. Moretti.

Bulletin No. 46 of the Forestry and Timber Bureau is by Dr. Ken Eldridge, our friend, fellow member, and for several years President. It is called Genetic Variation in Growth of Eucalyptus regnans, and deals with the variation in habit and speed of growth of Mountain Ash at different altitudes on Mt. Erica and study how many good qualities are transmitted to later generations, grown from seed of selected trees. Anything that is likely to result in more Mountain Ash forests being grown pleases field naturalists. It is one of our most beautiful trees.

At this stage of our history new plants are being recorded in Victoria - some known inother states have been recorded here during the past year, and at least one undescribed species has been collected near Bryce's Gorge in the Mt. Howitt Region. This is an alpine Epilobium (Willow herb) found by Messrs Cliff Beauglehole and Evan Chesterfield and to be described by Dr. Raven who described Epilobium Willisii first collected on our Dargo High Plains camp out a few years ago. In the Mt.Skenes-Mt. Howitt region Mr. Chesterfield has also collected the N.S.W. species Prostanthera rhombea, Goodenia Heterophylla and Dampiera scottiana, the Idsmanian Boronia Ci Fridora (strongly lemon-scented) and a possible new Goodenia; and Mr. Beauglehole has a new Poa (Tussock Grass)

Aquatic Plants of Australia:

By Helen Aston, Senior botanist National Herbarium Melbourne. Published by Melbourne University Press, Price $21.00.

This beautifully produced book, subtitled: "A Guide to the identification of Aquatic ferns and flowering plants of Australia, both native and naturalised", while valuable to anyine interested in plants, especially aquatics, is likely to be a book used mainly bc specialists and those whose work makes the identification of water-plants necessary because

the price makes it rather a luxury for others. Yet it is a book full of interest for anyone who studies or observes native plants. The clear and easily followed descriptions, the well set out text and the reproduction of beautiful line drawings, mainly by the author, are a tribute to her knowledge and fitness for the work, as well as to the high standard maintained by the publishers.

Technical terms are used only when necessary, and are clearly explained in the golssary - there are useful sections entitled "How to use this book", and "How to use botanical keys"; a list of abbreciations and symbols, metric conversions table; location maps for Victoria and Australia,and several other useful sections and appendices.

Professor Turner says in his Forward -"Although not designed as a popular work, it will also be welcomed as an authoritative illustrated text by all those who retain their early inclination to observe and collect, and above all to name natural things."

I find that I learn something even about the plants I know by studying the drawings, which illustrate not only the plants, but small parts as seen under magnification. Australian botanical literature is permanently enriched by it, and those interested in plants, who do not posess a copy will be fortunate if they are able to consult it in a library.

Amongst ferns, the Warragul F.N.C. has found the very rare maidenhair (Adiantum diaphanum) long considered extinct, but found by them near Alambee, and later by Mrs. Lyndon near Leongatha. This is our most important fern discovery since Peter Turner collected Asplenium hookeranum at Bryces Gorge - its first discovery in Victoria and only the second in Australia. Added to Messrs Rogers and Vin Barton's discovery of the Tasmanian Eriostemon virgatus at Mt. Kaye in East Gippsland and Mr. Cane's discovery of the N.S.W. Lomandra Obliqua, also at Mt.Kaye, and Croton verrauxii (also N.S.W.) morth-west of Cann River these records suggest we have much yet to find and observant naturalists may well make more interesting discoveries, especially in the lesser-known mountain regions.

There have also been some interesting orebid discoeries in recent years; the latest being Pterostylis tenuissima hitherto knwon only from Portland. It was found at Rosedale South by a party of students accompanying Mr. Andrew Thornleigh of the Land Conservation Council.

Notes on Wanderer Butterflies.

In April 1947 (Autumn) we camped after dark in Morialta Gorge near Adelaids. At daylight next morning we were amazed by the seemingly dead leaves coueering the Eucalpyt above our tent. When the sun rose the "dead leaves" started opening their wings in its warmth. They were Wanderer Butterflies! We later learnt that this gorge was famous for these butterflies which fed on the "Cottonwood" bushes which grew among the native plants on the hills at the top of the cliffs.

In June this year (Winter) 1973, we again visited Morialta Gorge. The bush on the hills around the gorge had been burnt although growth in the gorge was intact. We saw one Wanderer Butterfly in the gorge and had been surprised to see three others about Adelaids in the previous few days.

This last summer we have had a profusion of swan plants in our garden, but during the Autumn very few Wanderer Butterflies or their beautiful striped caterpillars pupated late in the season and we feared a few early frosty nights had killed them. On closer inspection of the pupas we discovered that harlequin bugs had attacked them. Some pupas disappeared and we think that they were eaten by the swamp rats which have been living in the garden... or maybe our pet possums ate them? The few which did hatch later had wings which did not develop properly.

The following letter was received by Joan M. Dixon, Curator of Vertebrates, National Museum of Victoria.

Dear MissChristensen,

Thank you for your informative note on bandicoots following the publication of the article on them in the Weekly Times". Your details of the dead animal found on the sand dunes at Lakes Entrance fit in well with dimensions of the long-nosed bandicoot Perameles nasuta. If the specimen is still accessible this can be checked by skull examination, or even by hair analysis.

There are several methods which can be used for despatch of mammal material for identification. Such material is often of great use in our research collections, enabling distribution of various species to be extended beyond previously known limits inmany instances. If you can send in dried skeletal material; skull and other bones, depending on size, there is little difficulty in consignment. Road killed specimens, or others found in the bush or on the beach present some problems. I suggest that these be prepared in one of two ways. The first whereby the specimen is deep frozen is by far the easiest, but this means that you need to ensur rapid delivery to the museum, adequate labels so that it reaches me quickly and possible a telegram or phone call to advise me of an impending parcel. This method works well as long as there is someone who can take delivery here. I am occasionally in the field and Mrs. Parke, my assistant

can be contacted, but there are always occasions when specimens thaw out before examination.

The other method is simple and involves preservation in methylated spirit. It is best to open up the body cavity of an animal with a lengthwise slit before preservation, as this enables adequate penetration of fluid. If a hypodermic is available, spirit can be injected into the thorax and under the skin so that the tissues do not become too soft or the skin slip. As a rule I fix mammal specimens in weak formalin (1 formalin : 9 water) for a few days before transferring them to 75% alcohol, but with limited facilities the methylated spirit method which I have mentioned above is adequate.

Data collected is important, as you obviously realise. Locality, date, collector, measurements, weight and sex of the animal are all useful items. Photographs of habitat are also of considerable significance.

There is no problem in despatching preserved specimens to the museum. Spirit can be drained off and they can be packed damp in cotton wool and then in plastic.

I hope that these few instructions will enable you to collect and despatch to the museum any interesting mammals which you may find.

The Habitat of the Eastern Rat Hydromys chrysogaster at North Arm bridge is quite normal. These are often found near sea beaches, including the islands of Bass Strait.

A book which may help you in your identification is "A Guide to the Native Mammals of Australia" by W.D.L. Ride, Oxford University Press 1970.

I would be grateful if you could draw the attention of the Latrobe Valley Naturalists to this letter. The members may be able to contribute some very interesting material to our research collections.

Yours sincerely,

Details ofcontributing clubs are as follows:

Latrobe Valley F.N.C.

Honorary Secretary: Mrs I.Peterson
14 Barry Street,
Morwell 3840. Tel.M'll 342129

General Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Mrs K.Newnham,
P.O.Box 302
Sale 3850. Tel.Sale 441046

Meetings commence at 8.00pm on the 1st Friday each month at the C.W.A.Rooms, Macarthur Street, Sale.

TRARALCON F.N.C.

Honorary Secretary: Mr J.Wall
156 Kay Street,
Traralgon. 3844. Tel.T'gon 741948.

Meetings commence at 8.00pm on the 1st Friday each month at the City Council Reception Rooms. TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr J.Brooks
3 Nobel Street,
Warragul,3820. Tel.W'gul21563

Meetings commence at 8.00pm. on the 3rd. Friday each month at the Albert Street State School, WARRAGUL.

Subsrcriptions payable to the Honorary Treasurer:
Mrs E.Lubcke,
122a Helen Street,
Morwell. 3840.

If transport is needed on excursions please contact Mrs H.Crane
Tel. Yallourn 622215

The LATROBE VALLEY NATURALIST is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect of Natural History are invited from members of all clubs and should be addressed to:

Honorary Editor (Mrs L.Padfield)
42 Strzelecki Road,
Yallourn. 3838.

NOVEMBER, 1973

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Latrobe Valley Naturalist

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COMING EVENTS

Traralgon F.N.C.

No meeting in December

Warragul F.N.C.

Meeting: Friday November 16th.
Final meeting for 1973

Speaker: Mr A.Horo
Illustrated talk on SOUTH AUSTRALIA

Excursion: Sunday 18th November
Details from Secretary.

Latrobe Valley F.N.C.

Meeting: Friday November 23rd.

Speaker: Mr Mike Hall from A.P.M.Forests
Details of recent visit to Seminar held in Western Australia.

Excursion: Saturday November 24th.

Meeting Place: Catholic Church, Commercial Rd. MORWELL
Leaving at 10.00 am.

December outing: Saturday 8th December
Meet at MARTIN WALKER RESERVE Yinnar South at 3.00pm.

follow signs from Yinnar Hotel.

January 1974 Campout January 26, 27, 28.
Bogong High Plains area.
Further details as they come to hand.

Dear Fellow Field Naturalists,

This issue of the L.V.Naturalist is in control of the editor, lately back from holidays. May I take this opportunity of thanking Mrs Puckey who typed the necessary stencils to complete the October issue. I believe she was pleased to see the editor back at her post. I am always grateful to all the people who contribute to the printing, wrapping and posting of the Naturalist.

Ed.

CORRECTION

This is an apology for an inadvertant mis-statement on page 5 of the October Naturalist. Perhaps the fact that the paragraph was written while the Acting Editor waited for it, and no time was taken to read it over before giving it to her, explains, without excusing the fact that I mentioned a possible new Goodenia found in the Mt Skene - Mt Howitt region.

This should have been a new Hibbertia, and we have now learned from the authority on this genus in Canberra that it is definately an undescribed species. More details of this when it is named and published. All I can say now is that it is an erect shrubby species with reddish branchlets and rather scattered blunt leaves with edges curled back to the broad midrib, stalked yellow flowers about one centimetre across with stamens all on one side of the stigma, and leaves, branchlets and calyces all clothed with minute soft hairs.

J.Galbraith.

REPORT OF TRARALGON F.N.C. EXCURSION TO STONEY CREEK 6th. October 1973

Mrs Johnstone was the leader of this trip for the "bird-watchers" of the club. Six cars left the Oasis at Toongabbie and travelled to Cowwarr Weir, there we saw a black duck with its ducklings and two pied cormorants. Before reaching the Creek we stopped to observe a Grebes nest in the centre of sparse reeds in a swampy patch of ground near the road side.

Arriving at Stoney Creek we walked in a South Eastern and Noght Westerm direction, seeing and hearing many birds including the Sulphur crested Cockatoo , Plover, Fantailed Cuckoo, King Parrot, Golden and Rufous whistlers. There was also a Willie Wagtails nest with 2 eggs and the pudding basin nest of the White-winged Chough. Many trees ans shrubs were in flower.

Reported by Mrs Wall, and sent by
Julie Chitty

Note from the President of L.V.F.N.C.

I would like to express my appreciation of your thoughtful gesture in sending from the Club a card, during my recent illness, wishing me good health in the future.

Tom Moretti

RARE WATTLES

At this time of the year, asSeptember comes, one cannot help enjoying the golden beauty of the wattles in bloom wherever one goes. It therefore seems an appropriate time to take note of any new or unusual species recently added to the list of Acacias in East Gippsland.

It was on 31st March 1971 that I accompanied Cliff Beauglehole and Colin Hutchinson on a trip to the Snowy River, east of Gelantipy. We followed a steep forestry access track leading down what is called Museum Spur, from the main Buchan Tullach Ard Road to a helipad situated some 700 to 800 ft above the river. The spur is rather densely clad with Stringybark, Silvertop and other eucalypts, eith a thick undergrowth largely composed of wattles. Of these the dominating species in the vicinity of the helipad is Acacia obtusifolia. This is usually a tall shrub, or small tree with sometimes very long and drooping straplike phyllodes, bearing flowers in spikes. It is very common in certain restricted areas of East Gippsland.

Below the helipad, where we left the landrover, I noticed the growth of wattles was similar on the very precipitous slope, but though superficially like A.obtusifolia, there appeare appeared to be a difference though I failed to define what that was. Of course there were neither flowers or pods to help identification so I took a specimen to press, just to compare with A.obtusifolia in my collection. I decided it was just a slight variation of that species, and left it at that.

Early this year I had a visit from Arthur Court, of the Herbarium, and on discussing local wattles, he asked to see my collection. Straight away he noticed my specimen from Museum Spur was not A.obtusifolia at all, but a species called A.subtilinervia , and not previously recorded for Victoria but known in N.S.W. Doesn't that go to show how a careless comparision may lead one astray!

The phyllodes of A.obtusifolia have one main central nerve, and a network of less distinct branched ones. In A. subtilinervia there are up to 20 nerves parallel to the main central one, and with no network between them.

Again with Cliff Beauglehole, on the 6th March 1971 we made a tour of the ranges adjacent to the N.S.W. border north of the Amboyne Settlement in the Tubbut district east of the Snowy River. On a stony ridge at an elevation of possibly 2000 ft, on its steepish northeasterly slope, we came upon a strange wattle occuring as a colony of small trees or shrubs.
Taking specimens, Cliff sent a spray to the Herbarium where it was apparently mistakenly identified as A. amoena. Knowing that wattle so well, as it is common down in the nowy River valley, we knew it could not be that one. However it was not long before Cliff wrote that he considered the strange wattle should be A.penninervis. Also my specimen exactly fitted in with a spray of that species I had previously collected near the Tinderry Mountains in N.S.W., when with J.H. Willis. Having since returned to the Amboyne and collected more material, Arthur Court was able to confirm this wattle as being definately A.penninervis, which is a new record for this part of the State. It was previously only known to occur near Avenal in Victoria, and apparently there was some doubt as to that occurence being authentic.

contd....

RARE WATTLES contd....

That reminds me that in the Latrobe Valley Naturalist No 55, of July 1968, Miss Galbraith made the prediction that if ever discovered in Victoria, Acacia penninervis would most probably be found in the Snowy River – Suggan Buggan region- a remarkably accurate forecast ! The Amboyne is actually on the watershed of the Deddick River which flows into the Snowy not many miles distant.

On September 6th 1970 I found an unusual variety of Dagger Wattle (Acacia siculiformis) that occurs in one colony on Buchan Creek, near the lower course of the Suggan Buggan River, at an elevation of only 800 ft.
This is a common and widespread species on the tableland, where the flower heads are sessile in the axils of the phyllodes, whereas those in Sugkan Buggan carry the flower heads on axillary stalks about half an inch long.
Arthur Court informs me that it is simply a variation from the more typical form.

Odd discoveries made from time to time point to the fact that it is still worth while being on the alert for new species even in Gippsland.

Keith Rogers

Report of Weekend at Wilsons Promontary October 13, 14th 1973.

The early birds started to arrive on Friday afternoon in the camp area. The weather was as usual very good and the area was white with the flowering tea-tree, that showed up the deep colouring of the crimson rosellas that abound in the area.

Friday night some late comers could not find the area, however that could be explained and understood because the arrival of vehicles was very heavy in the late afternoon. Saturday morning more of our members arrived and by midday we were all settled in and ready to go.

In the afternoon we drove to Mt Oberon car park and then walked along the Sealers Cove Track . Here we found many interesting botanical species, which were recorded by a very energrtic group. Some were anxious to go further along the track but the less energetic ones voted to return to base.

Saturday night we were the guests of the Geelong F.N.C. a party of about 70 who were staying in the Wallaby Lodge and another lodge.
The evening was very interesting and enjoyable. It was a slide night with some very good slides and thought on the subjects,

One group of slides was trees, and that subject alone is a very vast field, trees from all over Australia were shown.

Slides of the Gannet rookery off the coast from Portland were without question a great feat of bird photography. Gannets of all ages, sizes and groups were there for all to see and wonder at . There were many other slides and a movie of the Geelong F.N.C. project on the road to Lorne was shown to us.

The evening ended with supper and after thanking our hosts we all found our way to our camps and a good nights rest.

contd pp4

Wilsons Promontary contd..

On Sunday morning people were not so lively and a lot of time was spent discussing previous events.
We then went on a walk to Pillar Point , this took just on 2½ hours to get there and back. Legs must have been weary, because there was no objection to a rest at any interesting place whether it was scenery or botanical.
On our return to camp lunch was prepared ,then talk of returning home, some members had already left.

During the trip home we saw possibly 20 emus on the cattle grazing area. There was also a tame Wallaby in the Mt Oberon car park, but the highlight of my stay was to have a pair of little Wattle Birds chasing the parrots away to take crumbed biscuits from my hand.

The bird life was very good,a good variety and they were all very trusting, but the seagulls were forever squabbling and bluffing each other.
Two Sooty Oyster catchers were observed feeding in the shallows.

Early in the morning a wombat used the step of a caravan to scratch himself. Needless to say that as a result some of the occupants almost went through the ceiling!

I would like to say in conclusion I did not take a very active part in the activities, but none the less we all voted the weekend a great success as we set off to our respective homes.

Tom Moretti.

NATURE NOTES.

Have members ever cast their eyes off the road to gaze at the row of ornamental eucalypts planted on the left hand side of the Princes Highway east of Pink Hill at Boaconsfield ?

While visiting friends recently in the area, I had time to dwell upon the speci mens.

They are the spotted gums, E.maculata , occuring naturally in Victoria at Tarra Mountain, Buchan to Orbost and more frequent in coastal New South Wales and Queensland.

I was informed that a well known supplier of native plants from Springvale collects the seed from these eucalypts.

The tree can grow to a height of 150 ft. by 5 ft. in diameter, and is closely related to the bloodwood group.
According to Stan Kelly :- " It is a valuable species for forestry, producing a hard strong, tough timber, one of the most suitable Australian timbers for tool handlers. "

Nancy Brooks
Warragul F.N.C.

TALK ON BIRDS BY MR. VINCENT 28/9/73

Mr Vincent gave a very interesting talk illustrated by excellent slides which showed a great knowledge of both birds and photography. The Black Swan was depicted with young and the close-up of the bird's head showed detail only seen with very strong binoculars. The camouflage of the open nest of the Black-fronted Dotterel on gravel at the side of the road enabled it to defy detection until the mother bird arrived with food for the baby chick. The nest and eggs of several water birds included Little Tern, Crested Tern, Straw-necked Ibis, Chestnut-breasted Shell-duck. Mr Vincent described how he was buried in the sand to enable him to photograph the Terns.

Many of the slides had very interesting anecdotes associated with them relatine to either the surroundings of the nest, observations of the actions, habitats or patterns of behaviour of the birds or amusing tales of the photographer and his antics to achieve such beautiful slides. Notes of interest mentioned included how small birds fluff out their feathers to make them appear larger when approached by predators; how some female birds do not allow the males to feed the babies. One slide showed the Golden Whistler removing the baby's faecal sac to keep the nest clean and avoid attracting predators.
Baby birds have no choice of food and sometimes have to rest with a dragonfly or other food half-way down their throats.

The 40ft. aluminium ladder described did not sound very stable despite its 6 guy ropes and seat. Many sets of male and female birds, of the babies, the eggs and the nest were shown.

A list of the birds shown on the slides will enable readers to gauge the amount of country over which Mr and Mrs Vincent have travelled to collect the set of slides used. Slides included the Australian Ground Thrush at Wingan National Park, Wonga Pigeon which walks (not flies) into a water hole, Emu, Crimson Rosella bathing ; Gang-gang Cockatoo, Tawny Frogmouth which although so well camouflaged when mature, is very white when young and the eggs are also white. The Barn Owl is beautifully coloured for a nocturnal bird, Kookaburra, Sacred Kingfisher, Scarlet Robin, Flame Robin, Yellow-tailed Thornbill, Golden Bronze-cuckoo, Southern Yellow Robin, Jacky Winter catching a caterpillar and photographed from 16ft. above the ground. Rufous Whistler, Golden Whistler, Brown Thornbill, White-browed Scrub-wren, Superb Blue Wren, Dusky Wood-swallow, White-browed Wood -swallow, White-throated Tree-creeper's nest 32 ft.up, Eastern Spinebill, Yellow-faced Honeyeater, White-eared Honeyeater, Crested Honeyeater, Yellow-winged Honeyeater, Little Wattlebird, Olive-backed Oriole, Grey Butcher-bird, Bell-miner, Pied Currawong, Nankeen Kestrel, Black -shouldered Kite, Wedge-tailed Eagle with its cruel beak, Boobook Owl and Ground Parrot.

During question time Mr vincent described how they help restore injured birds to health and release them.
They allow 3 weeks for injuries to heal. Tales of how thw birds reacted to being handled created much interest.

After a great number of questions the meeting applauded Mr Vincent and thanked him for a wonderful evening.

Bon Thompson

REPORT OF BUSINESS MEETING OCTOBER 23RD. 1973.

Covers for NATURALIST 1974 have been ordered ,and are now in the hands of the printer(Mr Sterkenburg).

Photoflora will be held in Morwell Town Hall , March 13th 1974.
Deposit for the hall has been paid.

Decided that Mr Cane should receive a small gift from the club in appreciation of his talk, and in anticipation of the excursion.

Details given of November meeting and excursion.

Flying Duck Orchid cards. These are available to members at a cost of 5cents each. Contact Mrs Padfield if you would like some of these.

Car Stickers. Miss Kemp had tendered her resignation as Secretary , as she will soon be leaving the area.
Mr J.Puckey agreed to take over the position of secretary for Car Stickers.

Next Business Meeting will be held on Tuesday November 20th at the home of Mr and Mrs McElroy 35 Latrobe Road Morwell at 7.30pm.

Supper Roster November 23rd. Miss Kemp Mrs Sterkenburg.

Meeting to discuss program for 1974 would be held October 30th
Much discussion on the subjects and speakers took place. Tentative speakers will be asked if they can be present when requested.

Barbecque and Picnic Tea. Decided that we should all meet at the Martin Walker Reserve at Yinnar South on Saturday December 8th.
Meet at 3.00 pm and enjoy the long evening . This will be mainly a social day , but if some wish they may visit Morwell National Park to see the Tree Orchid which grows in that area.
Signs for direction will be placed along the road from Yinnar Hotel.

SPECIMEN TABLE October 26th

Specimen of Waratah (Telopea speciosissima)
Shells and Beach Stones showing them as they had been collected and after polishing. Brought by Mrs McElroy.

NATURALISTS EVENING AT SALE. 3rd November 1973

After what the Blackburn Tree Society members called "A wonderful day with wonderful leaders" spent in the Rosedale South bush under the leadership of Bon and Ollie Thompson, members of the Sale F.N.C. entertained members of the Tree Society and some from L.V.F.N.C. and Bairnsdale F.N.C. for the evening.

More details of this evening will be published in December Naturalist.

Members of L.V.F.N.C. will be interested that a presentation was made to ourpast Secretary Mr S.Belgraver recently.
A recording of Handels Messiah was given to him from the club in appreciation of his many years of service to the club.

Latrobe Valley Naturalist.

Details ofcontributing clubs are as follows:

Latrobe Valley F.N.C.

Honorary Secretary: Mrs I.Peterson
14 Barry Street,
Morwell 3840. Tel.M'll 342129

General Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN.

SALE F.N.C.

Honorary Secretary: Mrs K.Newnham,
P.O.BOx 302
Sale 3850. Tel.Sale 441046

Meetings commence at 8.00pm on the 1st Friday each month at the C.W.A.Rooms, Macarthur Street, Sale.

TRARALGON F.N.C.

Honorary Secretary: Mr J.Wall
156 Kay Street,
Traralgon. 3844. Tel.T'gon 741948.

Meetings commence at 8.00pm on the 1st Friday each month at the City Council Reception Rooms. TRARALGON.

WARRAGUL F.N.C.

Honorary Secretary: Mr J.Brooks
3 Nobel Street,
Warragul,3820. Tel.W'gul21563

Meetings commence at 8.00pm. on the 3rd. Friday each month at the Albert Street State School, WARRAGUL.

Subsrcriptions payable to the Honorary Treasurer:
Mrs E.Lubcke,
122a Helen Street,
Morwell. 3840.

If transport is needed on excursions please contact Mrs H.Crane
Tel. Yallourn 622215

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42 Strzelecki Road,
Yallourn. 3838.

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COMING EVENTS

ALL CLUBS — No Meetings during December 1973

Latrobe Valley F.N.C.

January 1974

Meeting: Friday 18th January at Yalloum State School. FILM NIGHT showing the film " The Straitsman",

Excursion: January 26,27, 28 To Bogong High Plains.

Dear Readers,

This is the last issue of L.V.Naturalist for this year, and we must wish you all a HAPPY CHRISTMAS. These greetings come from the editor on behalf of the President and members of L.V.F.N.C.

NATURALISTS EVENING AT SALE

This was briefly referred to in the November Issue of Naturalist. A more detailed account of the evening has been compiled by Miss Jean Galbraith.

The Thompsons began the evening, after a welcome from the Sale president, by showing slides of flowers which grow at Rosedale South but are not flowering now.

Then Mr Barton, the Bairnsdale F.N.C. hon. Secretary told us about the proposed dam sites on the Mitchell River, with slides of the country that would be affected,(making it clear that from an ecological point of view the TABBERABRA site is the most desirable).

Next a member of the Blackburn Tree Society told of that society's project which will save more Little Desert (wild life). They are buying 1000 acres of privately owned land adjoining the national park, members buying shares at $25.00 each.

Finally Mrs Kendall of the B.T.S. showed us some memorable slides of inland Australia, and the remainder of the evening was given up to " tea, coffee, biscuits and conversation "_____ especially conversation.

These informal inter-club gatherings are valuable in many ways - most especially in cementing friendships and exchanging news.

In appreciation of the work by the Thompsons , the Blackburn Tree Society have given a sum of money to purchase a book for the L.V.F.N.C. Library.

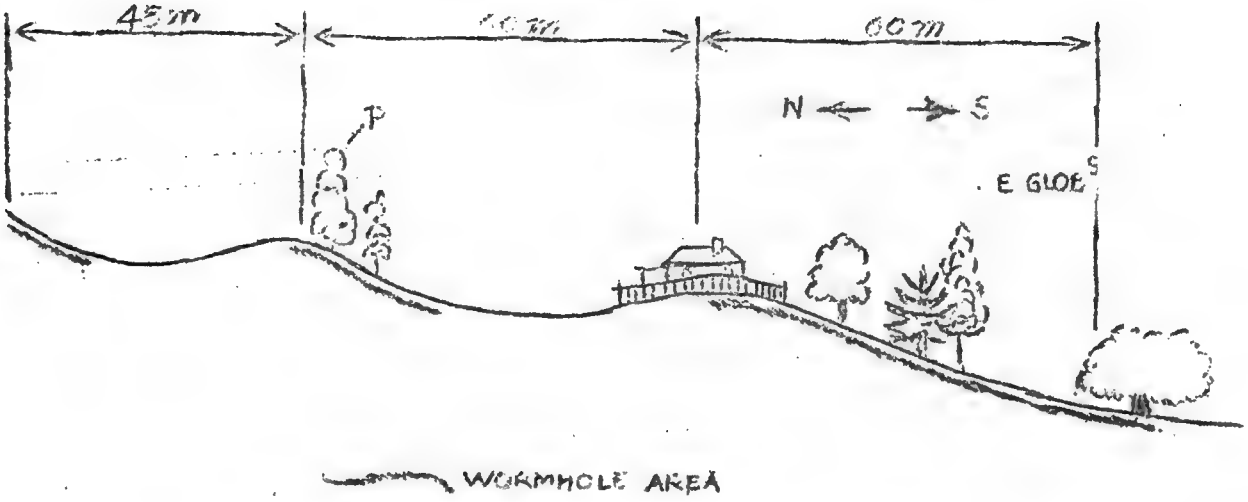
REPORT OF TRARALGON F.N.C.EXCURSION TO BURGOYNES GAP November 3rd 1973

It was a fine, but overcast day when three cars set out along the Licola road to Burgoynes Gap. The first stop was at Glenmaggie Weir, where there were Black Swans and Pelicans to be seen. We then continued along the winding road through breathtaking scenery; the Macallister River below us and the rocky mountains on either side.

In some places Yellow Everlastings and Blue-lily (Dianella) grew in profusion on the roadside. On reaching the Gap we found a great many flowers blooming. There were several orchids, Nodding Greenhood, Musky Caladenia, Pink Fingers, Wax Lip, Tiger Orchid and Hyacinth Orchids.
On a steep sided gully the maiden hair fern formed a thick matting.
After lunch we walked about 3 miles along a track to the north. Here the ground was more bare, but the Tiger Orchid grew in profusion.

Coming to a rocky outcrop covered with lichen enabled us to get a superb view of the river below. We then made our way up to the road and homewards.

Julie Chitty



I have long thought that our house (built in 1906) stands on a hummock which has over the ages, been built by worms. These small rounded hills are a feature of the area of Lillico, Warragul.
A diagramatic E-W section of the site is as the sketch.

The soil in these mounds varies in a regular manner. The north facing slopes are a deep dark brown fertile loam which carries a good sward of best pasture grasses and clovers. It shows that "crumb structure" in the turf which is typical of a good pasture. The south facing slopes are very different.
The mode of change-over is gradual and the place of change almost impossible to see. The soil is clayey and hard packed, and always rather bumpy on the surface. Light brown in colour and having the appearance of sub-soil. It cracks more than the other in a dry year on the higher parts, and despite twenty years of effort, it will never carry a dense sward, nor many of the best pasture plants. Clover is only sporadic. It keeps generally to native grasses, flat weed, sorrel and such like hardy fellows and is always showing open soil. In my early days, I tried to get a man to disc it up for me, but he said discs could make no impression on it, they only scratched the surface.

But strangely, trees grow very well. Eucalypt, Blackwood, Cypress and Radiata Pine. Also Oak, Ash and shrubs. One E.globulus, recognised as a fast growing tree, planted in the position shown grew at a very fast rate indeed and is now a fine young specimen with a trunk 8 or 9 inches through, and a row of young pines at "P" are very robust indeed on a particularly clayey area. Mahogany gums also have done well.

As regards pasture, I think the only thing which would have enabled it to carry a sward would be a deep sub-soil ploughing to loosen it all up followed by liming. I judge this on the performance of garden beds.

contd....

GIPPSLAND WORMS contd..

It is on the south slopes where the worms live. There is, except in a very wet season when you may find the odd hole, no sign of them on the north slopes. On the south, they are fairly frequent, even close up to large trees. The holes are about 5/8 ins. to 1 ins. in diameter and most nights the worms will bring up a little light brown watery soil and push it out on the surface – a tablespoon perhaps each night. They are most active in wet weather during the winter and early spring. I think he probably pushes his head(or his tail ? my wife queries) out a little when he makes his"cast" but I have never waited up to see. There is certainly never any sign of his having come bodily out on to the surface as the small earth worm does. In winter when there is plenty of water in the ground, he seems to rest near the surface because footfalls near will cause him apparently to withdraw downwards causing sucking watery noises. It seems as he is drawing back into water in the lower parts of the hole. I have never succeeded in obtaining a whole worm, but when burying a calf or digging a post-hole from 2ft.6ins. to 3 ft. deep, I have cut off a piece a few inches long and about the size of a man's thumb.

Early this spring, I had a go at following a hole down, but his hole deviated from mine at 2ft.6ins. and I gave up the chase. I did however, do a small piece of research. I entered a piece of water pipimg, 1 ins. in diameter outside in his hole and then gradually filled in my hole around the pipe, ramming the earth and withdrawing the pipe a bit at a time until an artificial worm-hole was made out to the surface. For four days nothing happened and then for three or four, the worm used my hole and deposited quite an amount of cast. After that there was no activity for about a month when, after 3 ins. of rain in late October, more cast was put out.

The layout of the worms 'abode, as far as I have observed ot, and the way they inhabit these hummocks, has led me to hazard several guesses about them, which may be useful to record for checking against other findings.

The worms appear to live in colonies but each worm may have a hole which is his especial dwelling. How much communication there is would require deep and careful excavation to find out.
I think probably water flows through part of the system and serves a double purpose – to keep the ground moist, particularly in summer, and to bring food. The food consisting of decaying vegetable matter. I doubt whether they live on living vegetable or animal matter existing near the surface and near their holes as I have seen no sign of any gnawed roots or other remains.

During the hot summer they retreat to great depths and are never heard, but during the winter new holes often appear.

Their activities in bringing up sub-soil in their casts have the effect of building out the hummocks on the south side and probably reducing them by causing subsidence gradually on the north. Such low areas as that between my house and the hump to the north are thus formed. The subsided areas may act as catchments for a supply of water via tunnels to the south side of the hill.

I conceive that such a process has gone on for hundreds of years and that all the small hills in our area have been built or much modified in this way. Some of them where no, or very little worm activity occurs may have reached a stage of becoming uninhabitable and have been abandoned.

contd...

GIPPSLAND WORMS cntd...

We once visited a farm at Strzelecki where the farmer showed us a rounded rough hillside on which he said he could get nothing much to grow. Looking at it I said, "It's a worm bed " and so it proved. Diagnosis follows observation !

I have heard that these worms are found nowhere else in the world. It is therefore clear that their unique mode of life and their size are linked with the soil and climate conditions of this area – deep clayey soils, heavy winter rains followed by warmish summers and a good supply of animal and vegetable matter in the soil or soil water. Their life and tunnelling systems will have evolved during the tertiary era. To convert surmise into certainty about the use the worm makes of his tunnels would be a difficult job. He works so deep. A lot of earth would need to be very carefully moved. One way would be to procure a stay of ececution, where excavations are to be made on a known worm bed.

John Eve
Warragul F.N.C.

CHANNEL COUNTRY EXCURSION 28th OCTOBER 1973.

Ten cars assembled at the meeting place in Heyfield where we were met by Mr Bill Cane junior in his land rover.

We travelled via Glenmaggie and Blores hill to Tinamba where we turned left and continued to the channel area where Mr Bill Cane senior awaited us. We then proceeded through the bush to a parking area where lunch was packed to carry, and walked down a track along the ridge, until we had steps cut into the bank half way down then by ladders to the river bed level.

The river was running quite strongly and we wended our way along finding many plants and admiring and discussing the various colours of the stone which is most prolofic in the area.

We lunched at a very interesting spot, after which our bags and gear were left behind and we ventured further upstream. Some younger members had a swim. After our return and a brief rest we set forth to return to our vehicles, a walk of about three quarters of a mile, Mr Cane had his landrover standing by to ferry anyone not wishing to tackle the uphill climb.
While at the river level I was paddling around in a rocky but calm pool and disturbed quite a sizeable trout.

After a welcome afternoon tea and a talk we moved out to return home, via Glenmaggie, Heyfield, Seaton, Stony Creek, where many interesting plants were seen.

Tom Moretti

A note from Sale Field Naturalist Club tells of the resignation of the President, Mr Peter Turner, who had filled that office for a number of years. Mr John Smith has stepped into the position for the present.
The club will be in recess during January 1974.

LOOKING ROUND US

Naturalists who keep their eyes open are likely to make interesting discoveries even in what appears to be unpromising places.

Our Secretary and I, returning from a holiday with Miss Rossiter when every day had been full of interest, stopped for a cup of tea at a wayside rest area just off the Prince's Highway.

Those who know Mrs Peterson's quick eye for orchids will know who it was who had walked less than a dozen steps from the car when she found two spider – orchids; not the widespread Green-comb Spider-orchid (Caladenia dilatata) but the much rarer C.patersoni .

It did not look at all a flowery place, yet, before we left she had found both species of Spider – orchids, Nodding Greenhoods, Tall Greenhoods, Mayfly Orchids, Gnat Orchids, Musky Caladenias (C. angustata), an immature Hyacinth Orchid – and I knowthere was a ninth species – probably Waxlip Orchid, but I do not remember defi nately.

This is not surprising since we had seen d together 35 species of native orchids during our holiday

While Mrs Peterson found orchids during our short wayside stop I looked for other flowers. There were (counting the orchids) 31 species in bloom in bloom in that area, many others not flowering; and three ferns – Bracken , Screw Fern and a beautiful patch of Maidenhair, while close to the table where we poured our tea there were two species of mistletoe on one branch – the bronzy-green Drooping Mistletoe and the erect Creeping Mistletoe with blunt leathery light-green leaves, yet, as I said, at first sight it did not seem to be a flowery place.

It is always worth looking.

J.Galbraith.

ORCHID HUNTERS.

Miss Ruth Clarke if Lakes Entrance would like to hear from anyone who finds or knows where any of the orchids listed below are growing.

These are orchids required to complete her paintings for a book being compiled by her.

Thelymitra chasmogama ✓
Thelymitra matthewsii ✓
Thelymitra macmillanii ✓
Calochilus saprophyticus ✓
Prasophyllum parviflorum ✓
" patens ✓
" morganii ✓

Thelymitra epipactoides ✓
~~Calochilus saprophyticus~~ ✓

ADDRESS BY MR.W.CANE OCTOBER 26TH 1973

CINNAMON FUNGUS.

Mr Cane gave a very interesting address on the root rot fungus Phytophthera cinnamonii . As yet there is not a great deal known about this fungus but research is taking place. It has perhaps been in Australia long before it was recorded although it is also thought to have been introduced from Asia. The fungus is a minute organism that still appears small even under 2,000 magnification. It is broadly accepted that under the right conditions of warmth and moisture it can multiply at the rate of millions per minute. One method used for detecting the prescence of this fungus is to germinate Lupin seeds and inject them with soil suspected of containing the fungus. If it is present the roots of the Lupin will quickly be affected. It is known that in the dry state the organism can remain dormant for at least 5 years but it is not known for how much longer. In the format stage it is so small it is almost impossible to detect and identify. Its general appearance and life cycle is known. It is generally believed that dispersion is by earth moving equipment or by people removing soil from the bush to their gardens. It is fairly common in nurseries and can be distributed with their plants. It is not known if it is windblown but Mr Cane thinks this is quite feasible. It can impel itself in water and change direction. In sandy or gravel type soil it can affect the roots much more quickly than in heavy soil. Water must be present for the organism to reach the roots of plants.

Much research is necessary before details of which plants are affected but already it is known to affect a very wide range of garden and native plants. Some plants are more resistant than others to attack but it cannot be said yet that any plants are completely resistant. Some plants die in 3 days while others may take 12 months.

WHY A MENACE NOW.

Movement of soil has spread the fungus more quickly than natural means would have. Mr Cane is convinced that persistant burning of natural bush is playing a big part in the spread of this fungi. Most of our native plants have evolved with fire and can withstand it but natural fires were not consistently in the same areas every year or so as they are today.

NATURAL CONTROL.

Several organisms (app.5) are known to provide biological control and one is of particular merit providing all other factors are equal. When there is a high incidence of the fungus in the soil even the bacteria most likely to provide control is only a partial control. With a low incidence the bacteria gives complete control. In the natural environment these organisms control the fungus to such an extent that it is not noticed. All these control organisms live in decaying vegetable matter on the floor of the forest. Mr Cane sees these leaves, etc. as future plant food but he suggested Forestry Officers see them as litter and probable fire menace Where most damage by the fungus has occured over the widest area it is where burning has been most frequent over the longest period. Phytophthera was first known in the Jarrah forests in W.A. where the forests had been freely burnt by Forestry Officers and landowners and the combination of high raunfall and warm temperatures with the depletion of natural enemies are thought to be responsible.
It was also known in Queensland,N.S.W. and first in victoria in East Gippsland.

contd...

CINNAMON FUNGUS contd...

In different districts various plants are affected first - for example in W.A. Banksia grandis is the indicator but in E.Gippsland it is a species of Grasstree.

CHEMICAL CONTROL.

Mr Cane states that any fungicide containing copper will kill Phytpphthera but caution is necessary and practically all Protaceae family is susceptible to too many doses of copper. If two applications of copper based fungicide are used then Iron Chelates must be used to overcome the effects of copper.
Difolatan is as yet thought to be safe for all types of plants but soil is living and the Difolatan will kill other organisms as well. The most successful means of control with the least side-effects after the rate of infection has been reduced by watering with Difolatan is to collect the humus from the forest for different plants - for example for Banksias and Grevilleas use leaf mould from under Banksias and then let the shed leaves of the plant remain on the ground.
For plants of the Myrtacea family use the leaf mould from under Eucalypts and Casuarinas.

Bon Thompson.

Plants not previously recorded by our club for the Briagalong area. These plants were recorded on 28th October on the club excursion led by David and John Cane to the Channel Country on the Avon River.

Cheilanthes distans		Bristly Cloak Fern
Cyperus lucidus		Leafy Flat-sedge
Dichopogon strictus		Chocolate Lily
Dodonea cuneata		Wedge-leaf Hop-bush
Epilobium cinereum		Variable Willow-herb
Hakea microcarpa		Small-fruit Hakea
Leptospermum obovatum		River Tea-tree
Lepilaena sp.	+	Water-mat
Linum marginale		Native Flax
Lissanthe strigosa		Peach Heath
Myriophyllum elatinoides	+	Water Milfoil
Pimelea curviflora		Curved Riceflower
Pittosporum undulatum	+	Sweet Pittosporum
Plantago lanceolata	*	Ribwort
Platysace ericoides		Heath Platysace
Polygonum minus		Slender Knotweed
Potomogetum sp.		Pondweed
" "		"
Pultenaea largiflorens	+	Bushpea
" laxiflora	+	"
Sigesbeckia orientalis		Indian Weed
Vittadenia triloba	+	Common New Holland Daisy
" meulleri	+	Narrow-leaf New Holland Daisy

* Introduced plants

\+ Plants not recorded in the Distribution of Victorian Plants as growing in S which includes the excursion area.

List compiled by Bon Thompson

REPORT OF BUSINESS MEETING HELD 20TH NOVEMBER 1973

Paper Shortage We had been unable to receive the full order for our supplies for the Naturalist. This is due to a world wide paper pulp shortage.
We may have to shorten the size of the Naturalist in the future.
This does not mean that we will still not require more articles for the Naturalist.
The Editor is continually getting headaches about the lack of material, so please try to remedy the situation with a few short articles about your observations.

Morwell Horticultural Society requested a combined gathering at the Hazelwood Aboreteum. Many members may not be aware of the association of our club with them in the original planting of the aboreteum.

BLACKBURN TREE SOCIETY . Notice received that a donation was given to the club. This was to purchase a book for the library. Mrs Crane to purchase same.

Photoflora 1974 arrangements going ahead for advertising etc.

Field Naturalists Clubs Association will hold a meeting at Stawell in March 1974. The committee decided that we should re-examine our policy for this organisation. We would await outcome of March meeting.

Writing up of meetings and excursions .
There was much discussion on this subject as Mrs Thompson announced that she would not always be available to do these duties.
It was felt that perhaps more of the members should become interested in these activities. There should be enough members to offer to do this and it may only be one members turn once in a year. Is that too much to ask of the members?
If people cannot write up the meetings and excursions then we cannot publish them.

Next business meeting will be held Tuesday January 15th 1974. at the home of Miss Jean Galbraith, Tyers.

Closing date for material to be included in January Naturalist is January 8th.

FAREWELL AND THANKYOU

The November meeting gave all members present the opportunity to say farewell to Miss Betty Kemp. She has been a member of the club for many years, she typed the stencils for the Naturalist for many issues and very capably organised the Car Sticker project. Our thanks go to her for what she has done for us.
A special supper had been organised by the ladies, and Mr Moretti made a presentation of a sheath of flowers to Miss Kemp. Mrs McElroy had arranged the flowers.

We had hoped to see our friend Mr Belgraver at the November meeting.
He found it impossible to attend but a letter read to members told of his thanks for the beautiful records given to him. We hope he has much pleasure from them.

Specimens of Exocarpus fruits, Callistemon and the Silky Oak flowers where on the table at the November meeting.

Latrobe Valley Naturalist.

Details ofcontributing clubs are as follows:

Latrobe Valley F.N.C.
Honorary Secretary: Mrs I.Peterson
14 Barry Street,
Morwell 3840. Tel.M'll 342129

General Meetings commence at 7.30pm. on the 4th Friday each month at the Yallourn State School, YALLOURN.

SALE F.N.C.
Honorary Secretary: Mrs K.Newnham,
P.O.BOx 302
Sale 3850. Tel.Sale 441046

Meetings commence at 8.00pm on the 1st Friday each month at the C.W.A.Rooms, Macarthur Street, Sale.

TRARALGON F.N.C.
Honorary Secretary: Mr J.Wall
156 Kay Street,
Traralgon. 3844. Tel.T'gon 741948.

Meetings commence at 8.00pm on the 1st Friday each month at the City Council Reception Rooms. TRARALGON.

WARRAGUL F.N.C.
Honorary Secretary: Mr J.Brooks
3 Nobel Street,
Warragul,3820. Tel.W'gul21563

Meetings commence at 8.00pm. on the 3rd. Friday each month at the Albert Street State School, WARRAGUL.

Subsrcriptions payable to the Honorary Treasurer:
Mrs E.Lubcke,
122a Helen Street,
Morwell. 3840.

If transport is needed on excursions please contact Mrs H.Crane
Tel. Yallourn 622215

The LATROBE VALLEY NATURALIST is the official publication of the Latrobe Valley Field Naturalists' Club. Contributions on any aspect of Natural History are invited from members of all clubs and should be addressed to:

Honorary Editor (Mrs L.Padfield)
42 Strzelecki Road,
Yallourn. 3838.
